## REPORT DOCUMENTATION PAGE

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Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden. To Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. 2. REPORT DATE November 1996 3. REPORT TYPE AND DATES COVERED Site Investigation Report AGENCY USE ONLY (Leave blank) 5. FUNDING NUMBERS DAHA90-93-D-0005/35 4. TITLE AND SUBTITLE Installation Restoration Program Site Investigation, Volume IV, 133<sup>rd</sup> Airlift Wing, Minneapolis, Minnesota 6 AUTHOR(S) 8. PERFORMING ORGANIZATION 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) REPORT NUMBER Operational Technologies Corporation 4100 N.W. Loop 410 Suite 230 San Antonio, Texas, 78229-4258 900 No. 1700-9788 10. SPONSORING/MONITORING 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) AGENCY REPORT NUMBER Air National Guard Readiness Center/CEVR 3500 Fetchet Avenue Andrews AFB MD 20762-5157 TEATHER COVERS PUNDING MIMIBERS a TOLL AND SUBTITLE 11. SUPPLEMENTARY NOTES : /.GTACS(5) 12b. DISTRIBUTION CODE 12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited (MARICE) FRO ADDRESSING 3. PERFORMING ORGANIZATION BEFORT NUMBER 13. ABSTBACT (Maximum 200 words)
A Site Investigation (SI) was conducted at four separate former underground storage tank (UST) locations. A total of nine USTs, at seven different locations, were removed as part of an on-going ANG tank removal program Confirmation sampling performed at the time the tanks removed exhibited levels of contamination requiring further investigation at four of the locations, with two USTs at one of the locations. The former USTs were identified as; No. 591 adjacent to Building 659, No. 873 adjacent to Building 687, No. 801 adjacent to Building 680, and Nos. 651/652 adjacent to Building 665. Volume IV of this SI includes Appendix I (Concluded) - Analytical Data and QA/QC Evaluation Results. SELECT AND CONTRACTOR OF THE PROPERTY OF THE P 19970303 10 128 2 Table 1 15. NUMBER OF PAGES 14. SUBJECT TERMS Installation Restoration Program; Air National Guard; Site Investigation, Volume J 133rd Airlift Wing, Minneapolis, Minnesota 16. PRICE CODE

17. SECURITY CLASSIFICATION Undersification

18. SECURITY CLASSIFICATION

OF THIS WAGE ssified

none

SECURITY CLASSIFICATION

OE ASISSACIED

20. LIMITATION OF ABSTRACT

## SITE INVESTIGATION REPORT FOR FORMER UST SITE NOS. 1, 2, 3, AND 4

VOLUME VI APPENDIX I (Concluded)

133rd AIRLIFT WING MINNESOTA AIR NATIONAL GUARD MINNESOTA AIR NATIONAL GUARD BASE MINNEAPOLIS, MINNESOTA

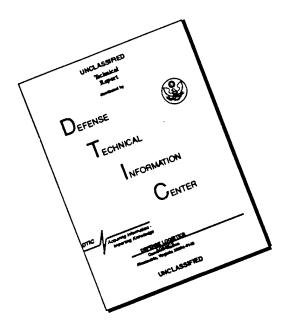
**NOVEMBER 1996** 



Prepared For

ANGRC/CEVR ANDREWS AFB, MARYLAND

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## SITE INVESTIGATION REPORT FOR FORMER UST SITE NOS. 1, 2, 3, AND 4

## VOLUME VI APPENDIX I (Concluded)

133rd AIRLIFT WING MINNESOTA AIR NATIONAL GUARD MINNESOTA AIR NATIONAL GUARD BASE MINNEAPOLIS, MINNESOTA

**NOVEMBER 1996** 

**Prepared For** 

ANGRC/CEVR ANDREWS AFB, MARYLAND

Prepared By

Operational Technologies Corporation 4100 N.W. Loop 410, Suite 230 San Antonio, Texas 78229-4253 (210) 731-0000

## APPENDIX I

ANALYTICAL DATA AND QA/QC EVALUATION RESULTS

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## **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

SPL, INC.

## REPORT APPROVAL SHEET

WORK ORDER NUMBER: 95 - 08 - 719

Approved for release by:

M. Scott Sample, Laboratory Director

Date: 9/7/95

Karen Satterfield, Project Manager

Certifica

HOUSTON LABORATOR

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

ertificate of Analysis No. H9-9508719-01

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

DATE: 09/01/9

PROJECT: Minnesota ANG-B SI

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 651-003 DUP

PROJECT NO: 1315-193

MATRIX: AQUEOUS

DATE SAMPLED: 08/17/95

DATE RECEIVED: 08/18/95

ANALYTIC ANALYTIC	CAL DATA		
PARAMETER	RESULTS	DETECTION	UNIT
GC/FID Gasoline-Purgeables WI LUFT GRO Analyzed by: RR Date: 08/26/95 01:11:00	ND	0.1	mg/l
GC/FID Diesel-Extractables WI LUFT DRO Analyzed by: SEG Date: 08/28/95 22:36:00	0.57	0.1	mg/j
Liquid-liquid extraction METHOD 3510 *** Analyzed by: MF Date: 08/23/95 13:00:00	08/23/95		
Acid Digestion-Aqueous, ICP METHOD 3010 *** Analyzed by: AM Date: 08/23/95	08/23/95		1
Lead, Total METHOD 6010 *** Analyzed by: JM Date: 08/25/95	ND	0.1	mg/L

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

\*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.

\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

## ® Certificate of Analysis No. H9-9508719-01

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

09/01/95

PROJECT: Minnesota ANG-B SI

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 651-003 DUP

PROJECT NO: 1315-193

MATRIX: AQUEOUS

**DATE SAMPLED:** 08/17/95 DATE RECEIVED: 08/18/95

ANALY	TICAL DATA		
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene 2-Hexanone	ND	5	ug/L
	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone Styrene	ND	10	ug/L
	ND	5	ug/L
1,1,2,2-Tetrachloroethane Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
	ND	5	ug/L
Vinyl Acetate Vinyl Chloride	ND	10	ug/L
	ND	10	ug/L
Xylenes (total)	ND	5	ug/L
	<del>-</del>	•	, ug/11

METHOD: 8240, Volatile Organics - Water (continued on next page)



## HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

certificate of Analysis No. H9-9508719-01

Operational Tech

SAMPLE ID: 651-003 DUP

SURROGATES	AMOUNT	%	LOWER	UPPER
	SPIKED	RECOVERY	LIMIT	LIMIT
1,2-Dichloroethane-d4	50 ug/L	100	76	114
Toluene-d8	50 ug/L	100	88	110
4-Bromofluorobenzene	50 ug/L	94	86	115

ANALYZED BY: JC

DATE/TIME: 08/18/95 18:43:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

Report Date: 21-Aug-1995 16:44

## SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950818.b/l230s16.d

Lab Smp Id: 9508719-01A

Inj Date : 18-AUG-1995 18:43

Inst ID: l.i

Operator : JC Smp Info : 9508719-01A-8240W/1X Misc Info : L230W1/L230B01/L230CW1

Comment

Method: /chem/l.i/l950818.b/lvoclpw.m Meth Date: 21-Aug-1995 09:51 jimmy (Cal Date: 18-AUG-1995 09:12 (Cal Bate: 22) Dil Factor: 1.000 Integrator: HP RTE Quant Type: ISTD Cal File: 1230cw1.d

Compound Sublist: normal.sub Target Version: 3.10

							CONCENT	RATIONS
		QUANT SIG					ON-COLUMN	FINAL
Co	mpounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ug/L)
===		====	==	=====	=====	======		======
<b>—</b> ,	23 Bromochloromethane	128.00	5.198	5.189	(1.000)	61305	250	
. *	32 1,4-Difluorobenzene	114.00	6.900	6.901	(1.000)	283745	250	*
*	50 Chlorobenzene-d5	117.00	11.072	11.064	(1.000)	222395	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.973	5.965	(1.149)	23032	250	50
\$	43 Toluene-d8	98.00	9.120	9.120	(0.824)	297707	250	50
\$	61 Bromofluorobenzene	95.00	12.748	12.740	(1.151)	99773	240	47

Page 2

Data File: /chem/l.i/1950818.b/1230s16.d

Report Date: 21-Aug-1995 16:44

## SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1230s16.d

Lab Smp Id: 9508719-01A

Analysis Type: VOA

Quant Type: ISTD

Operator: JC
Method File: /chem/l.i/1950818.b/lvoclpw.m
Misc Info: L230W1/L230B01/L230CW1

Calibration Date: 08/18/95 Calibration Time: 0912

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	70612	35306	141224	61305	-13.18
32 1,4-Difluorobenzene	343192	171596	686384	283745	-17.32
50 Chlorobenzene-d5	272188	136094	544376	222395	-18.29

23 Bromochloromethane 5.19 4.69 5.69 5.20 0.3 32 1,4-Difluorobenzene 6.90 6.40 7.40 6.90 -0.0			RT	LIMIT		
32 1,4-Difluorobenzene 6.90 6.40 7.40 6.90 -0.0	COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	32 1,4-Difluorobenzene	6.90	6.40	7.40		0.16 -0.01 0.08

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

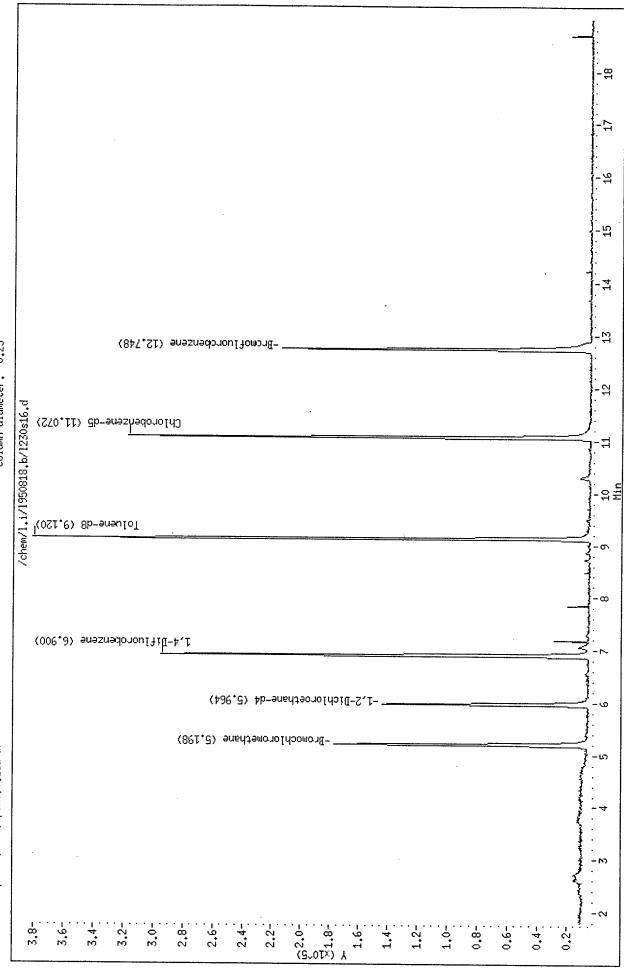
RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/1.i/1950818.b/1230s16.d Date: 18-AUG-1995 18:43 Client ID: Sample Info: 9508719-01A-8240W/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

Operator: JC Column diameter:

0.25



Software Version: 3.2 <16C2O>

Sample Name : 9508719-01B Sample Number: SC ;W;1

Time Study : 08/26/95 01:33 : GROW;1;PQL

Operator : RR

Instrument : HP U

Channel : B

A/D mV Range : 1000

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : 4153271317 Data Acquisition Time: 08/26/95 01:11

Delay Time : 0.00 min. End Time : 21.20 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_677.raw
Result File : l:\data\tchrom\btex\hp\_u\UU\_677.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\UWGO8215.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXU.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

## PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4	3.395 4.244 4.785 14.138	6628.00 376836.81 986711.75 136454.00	534.76 BB 50261.65 BV 98462.59 VB 38464.11 BB		1.8951 1.8951 1.8951 1.8951	0.2855	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	0.0066 93.4551 0.0000 87.7774	0.2855 0.2855
		1506630.50	187723.11		7.5804	1.1421		181.2391	1.1421

### Group Report For :

Peak #	Ret Time [min]	Area [uV-sec]	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT	RAW AMT. PURFID PPM
1	3.885	0.00	0.00 VV	1.8951	0.0000	Benzene	0.0000	0.0000
4	6.894	0.00	0.00 VV	1.8951	0.0000	Toluene	0.0000	0.0000
5	10.870	0.00	0.00 VV	1.8951	0.0000	Ethyl_Benzene	0.0000	0.0000
6	11.141	0.00	0.00 VV	1.8951		m - Xylene	0.0000	0.0000
7	12.733	0.00	0.00 VV	1.8951		o-Xylene	0.0000	
		0.00	0.00	9.4755	0.0000		0.0000	0.0000

**Group Report For : SURROGATE** 

Peak #	Ret Time [min]	Area [uV-sec]	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	4.244 4.785 14.138	376836.81 986711.75 136454.00	50261.65 BV 4032.2776 98462.59 VB 38464.11 BB 1554.5461	1.8951 1.8951 1.8951	0.2843	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	93.4551 0.0000 87.7774	0.2843
		1500002.50	187188.36	5.6853	0.8528	• • • • • • • • • • • • • • • • • • • •	181.2325	0.8528

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Report Stored in ASCII File:  $l:\data\tchrom\btex\hp_u\UU\_677.TX0$ 

### Chromatogram

mple Name : 9508719-01B

FileName : l:\data\tchrom\btex\hp\_u\UU\_\_677.raw

: BTEXU.ins tart Time : 0.00 min

ale Factor: 1

End Time : 21.20 min

Plot Offset: 1 mV

Sample #: SC ;W;1

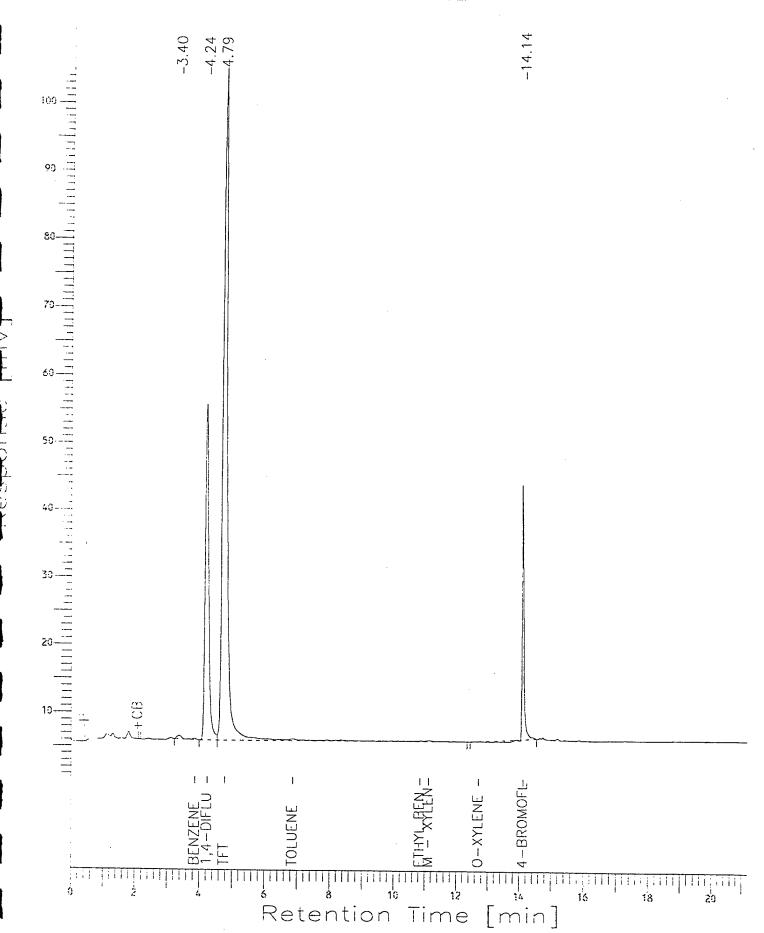
Date: 08/26/95 01:33

Time of Injection: 08/26/95 01:11 Low Point : 0.67 mV

Plot Scale: 104 mV

Page 1 of 1

High Point: 104.42 mV





HOUSTON LABORATOR

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

## Certificate of Analysis No. H9-9508719-02

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

DATE: 09/01/9

PROJECT: Minnesota ANG-B SI

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: MW-4

PROJECT NO: 1315-193

MATRIX: AQUEOUS

DATE SAMPLED: 08/17/95 12:00:00

DATE RECEIVED: 08/18/95

PARAMETER ANALYTICAL	DATA		
2 ANAMETER	RESULTS	DETECTION	UNITS
GC/FID Gasoline-Purgeables WI LUFT GRO Analyzed by: RR Date: 08/28/95 03:54:00	3.1	LIMIT 0.5	mg/L
GC/FID Diesel-Extractables WI LUFT DRO Analyzed by: SEG Date: 08/28/95 23:11:00	. 1.30	0.1	mg/L
Liquid-liquid extraction METHOD 3510 *** Analyzed by: MF Date: 08/23/95 13:00:00	08/23/95		
Acid Digestion-Aqueous, ICP METHOD 3010 *** Analyzed by: AM Date: 08/23/95	08/23/95		
Lead, Total METHOD 6010 *** Analyzed by: JM Date: 08/25/95	ND	0.1	mg/L
JD - Not detocted			

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Retrificate of Analysis No. H9-9508719-02

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

09/01/95

PROJECT: Minnesota ANG-B SI

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: MW-4

PROJECT NO: 1315-193

MATRIX: AQUEOUS

DATE SAMPLED: 08/17/95 12:00:00

DATE RECEIVED: 08/18/95

ANALYTIC	<sup>1</sup> አፒ. ነንአሞአ		
PARAMETER	RESULTS	PQL*	INITEG
Acetone	ND	100	UNITS
Benzene	39	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L ug/L
Chlorobenzene	ND	5	
Chloroethane	ND	10	ug/L ug/L
2-Chloroethylvinylether	ND	10	ug/L ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	120	5	ug/L
2-Hexanone	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	ND .	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	660	50	ug/L
			-5/-

METHOD: 8240, Volatile Organics - Water (continued on next page)



HOUSTON LABORATOR 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

® ertificate of Analysis No. H9-9508719-02

Operational Tech

SAMPLE ID: MW-4

SURROGATES	AMOUNT	8	LOWER	UPPER
1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene	SPIKED 50 ug/L 50 ug/L 50 ug/L	<b>RECOVERY</b> 102 100 114	<b>LIMIT</b> 76 88 86	LIMIT 114 110 115

ANALYZED BY: JC

DATE/TIME: 08/18/95 19:12:00

METHOD: 8240, Volatile Organics - Water

\* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

Page 1

Data File: /chem/l.i/1950818.b/1230s17.d

Report Date: 21-Aug-1995 16:44

## SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950818.b/l230s17.d

Lab Smp Id: 9508719-02A

Inj Date : 18-AUG-1995 19:12

Operator : JC Inst ID: 1.i

Smp Info : 9508719-02A-8240W/1X Misc Info : L230W1/L230B01/L230CW1

Comment

Method

Quant Type: ISTD

Method : /chem/l.i/l950818.b/lvoclpw.m Meth Date : 21-Aug-1995 09:51 jimmy Cal Date : 18-AUG-1995 09:12 Cal Date : 23 Cal File: 1230cw1.d

Pil Factor: 1.000 Integrator: HP RTE Target Version: 3.10

Compound Sublist: normal.sub

							CONCENTR	ATIONS
-	pmpounds	QUANT SIG					ON-COLUMN	FINAL
		MASS	RT	EXP RT 1	REL RT	RESPONSE	(ng)	( ug/L)
	30 Benzene	====	==	===== ;	=====	======	======	
М		78.00	6.438	6.437	(0.933)	339510	200	39
-	/reme (rocar)	106.00				2030358	3700	730 (A)
	54 Ethylbenzene	106.00	11.421	11.420	(1.031)	263914	590	120
	55 m,p-Xylene(s)	106.00	11.581	11.581	(1.046)	1998251	3600	720 (A)
	59 o-Xylene	106.00	12.107	12.107	(1.093)	32107	58	• • • •
À	23 Bromochloromethane	128.00	5.190	5.189	(1.000)	60407	250	12
	32 1,4-Difluorobenzene	114.00	6.902	6.901 (		301368	250	
	50 Chlorobenzene-d5	117.00	11.073	11.064 (		237527		
\$	=, = District Occinance - Q4	102.00	5.966	5.965 (		22989	250	
٤	43 Toluene-d8	98.00	9.121	9.120 (			250	51
	61 Bromofluorobenzene	95.00	12.740	12.740 (		319463	250	50
	<b>,</b>		/40	12.740 (	11.121)	128997	290	57

## Flag Legend

Target compound detected but, quantitated amount exceeded maximum amount.

Page 2

Data File: /chem/l.i/1950818.b/1230s17.d

Report Date: 21-Aug-1995 16:44

### SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1230s17.d

Lab Smp Id: 9508719-02A Analysis Type: VOA

Quant Type: ISTD

Operator: JC
Method File: /chem/l.i/1950818.b/lvoclpw.m

Misc Info: L230W1/L230B01/L230CW1

Calibration Date: 08/18/95

Calibration Time: 0912

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD		LIMIT	CAMPIT	0. D.T.D.D.
=====================================	SIANDARD	LOWER	OPPER =======	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	70612 343192 272188			60407 301368 237527	-12.19

COMPOUND	STANDARD	RT LOWER	LIMIT	CAMPID	° DINI
======================================	SIANDARD	LOWER	UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.19 6.90 11.06	4.69 6.40 10.56	5.69 7.40 11.56	5.19 6.90 11.07	0.01 0.01 0.09

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/1.i/1950818.b/1230s17.d Date : 18-AUG-1995 19:12

Client ID:

Sample Info: 9508719-02A-8240W/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0,25u df

Instrument: 1.i

Page 4

Operator: JC Column diameter:

0.25

Date : 18-AUG-1995 19:12

Client ID:

36

40

44

52

58

60

68

72

76

84

48

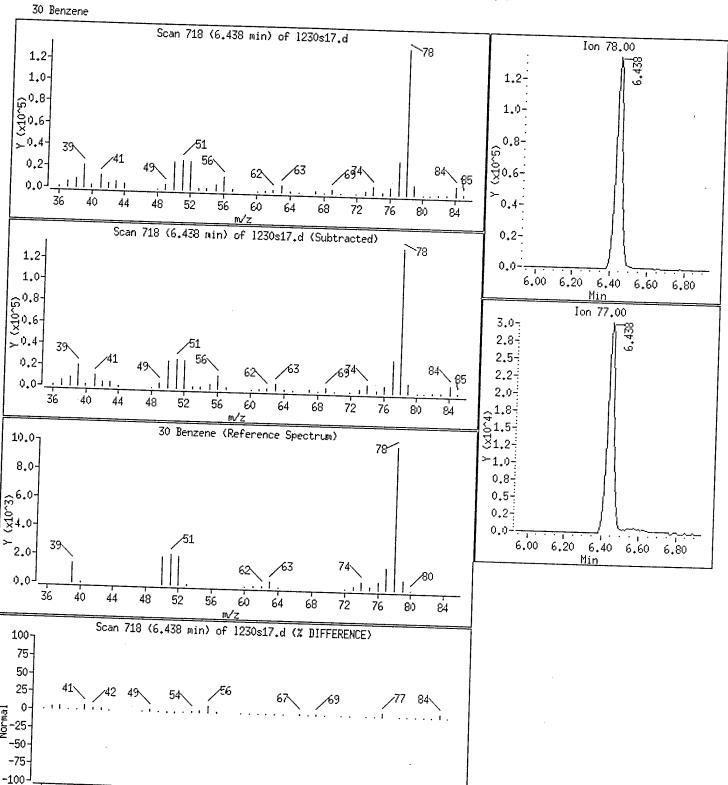
Sample Info: 9508719-02A-8240W/1X

Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

Operator: JC



Date: 18-AUG-1995 19:12

Client ID:

40

50

60

70

80

90

100

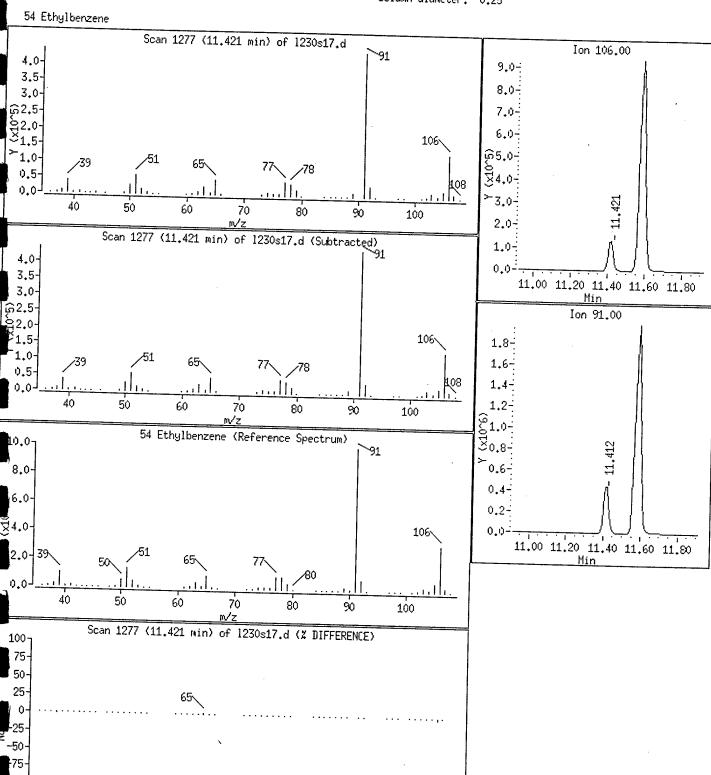
Sample Info: 9508719-02A-8240W/1X

Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

Operator: JC



Date: 18-AUG-1995 19:12

Client ID:

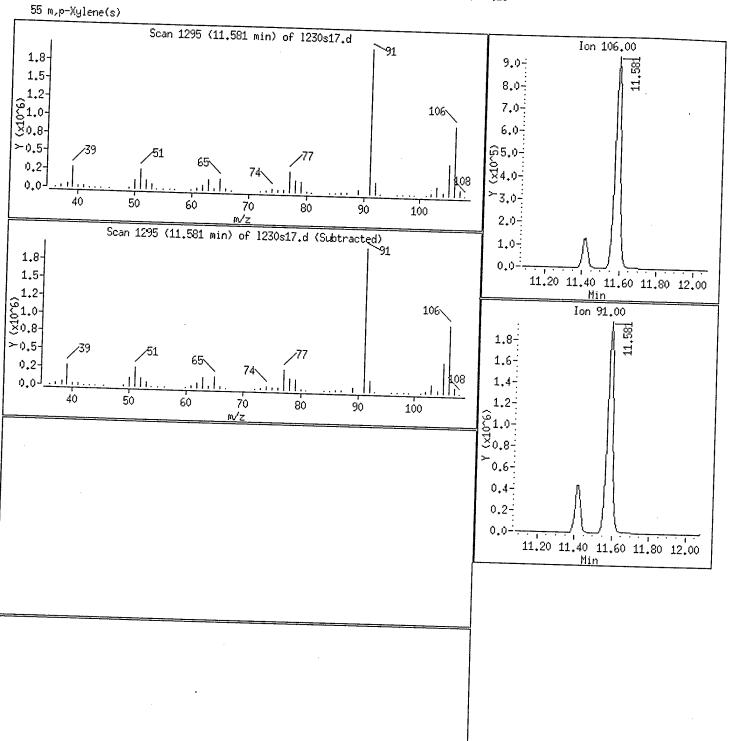
Sample Info: 9508719-02A-8240W/1X

Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

Operator: JC



Date: 18-AUG-1995 19:12

Client ID:

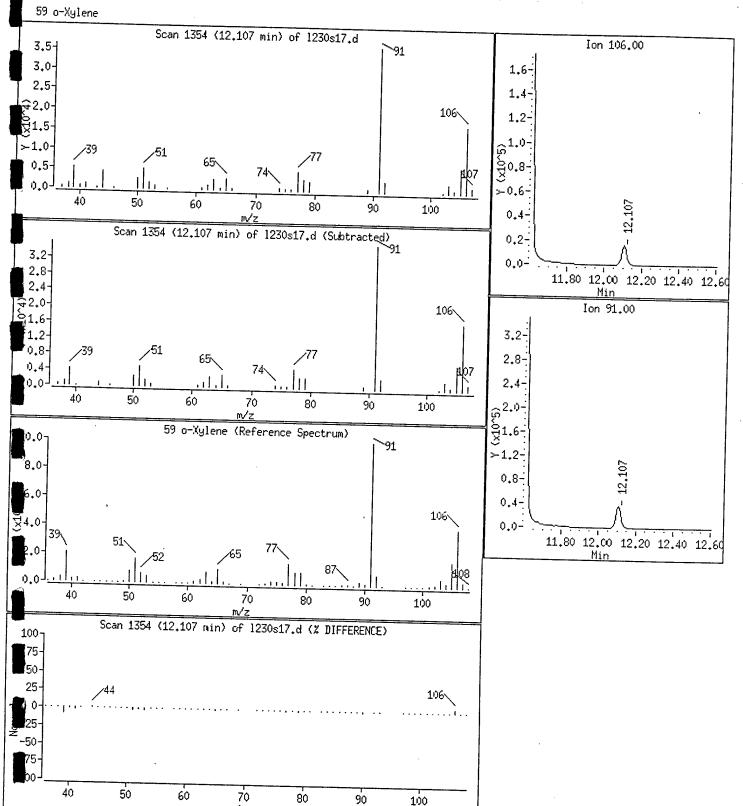
Sample Info: 9508719-02A-8240W/1X

Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

Operator: JC



Report Date: 22-Aug-1995 13:03

## SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950821.b/l233s03.d Lab Smp Id: 9508719-02A Inj Date : 21-AUG-1995 12:18

Operator : JC Inst ID: l.i

Smp Info : 9508719-02A-8240W/10X Misc Info : L233W1/L233B01/L233CW1

Comment

Method : /chem/l.i/1950821.b/lvoclpw.m Meth Date : 21-Aug-1995 10:11 jimmy ( Quant Type: ISTD

Cal Date : 21-AUG-1995 09:36 Cal File: 1233cw1.d

Als bottle: 8

Dil Factor: 10.000 Integrator: HP RTE

Compound Sublist: normal.sub

Target Version: 3.10

					CONCENTRA	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
=======================================	====	==			======	======
30 Benzene	78.00	6.330	6.322 (0.932)	29778	18	36 (a)
M 53 Xylene (Total)	106.00			171937	330	660
54 Ethylbenzene	106.00	11.321	11.314 (1.033)	20325	49	98
55 m,p-Xylene(s)	106.00	11.482	11.483 (1.047)	171937	330	660
* 23 Bromochloromethane	128.00	5.073	5.065 (1.000)	61291	250	
* 32 1,4-Difluorobenzene	114.00	6.793	6.785 (1.000)	297043	250	
* 50 Chlorobenzene-d5	117.00	10.965	10.966 (1.000)	230446	250	
\$ 26 1,2-Dichloroethane-d4	102.00	5.857	5.840 (1.155)	22277	240	49
\$ 43 Toluene-d8	98.00	9.022	9.014 (0.823)	313615	260	51
\$ 61 Bromofluorobenzene	95.00	12.650	12.642 (1.154)	104655	250	50

## QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation (BLOQ).

Page 1

Page 2

Data File: /chem/l.i/1950821.b/1233s03.d

Report Date: 22-Aug-1995 13:03

## SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: l.i

Lab File ID: 1233s03.d

Lab Smp Id: 9508719-02A Analysis Type: VOA Quant Type: ISTD

Operator: JC

Method File: /chem/l.i/l950821.b/lvoclpw.m

Misc Info: L233W1/L233B01/L233CW1

Calibration Date: 08/21/95

Calibration Time: 0936

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	66567 322888 258976	33284 161444 129488	645776	61291 297043 230446	 -7.93 -8.00 -11.02

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.06	4.56	5.56	5.07	0.15
	6.79	6.29	7.29	6.79	0.11
	10.97	10.47	11.47	10.96	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Date: 21-AUG-1995 12:18

Client ID:

Instrument: 1.i

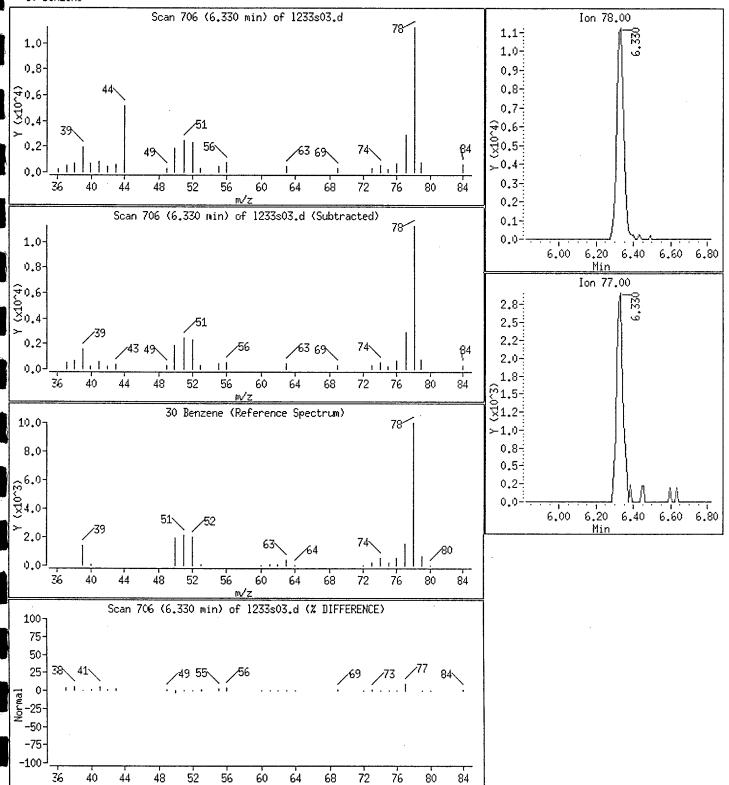
Sample Info: 9508719-02A-8240W/10X

Purge Volume: 5.0

Operator: JC

Column phase: 30m, hp5ms, 0.25u df





Date: 21-AUG-1995 12:18

Client ID:

Instrument: 1.i

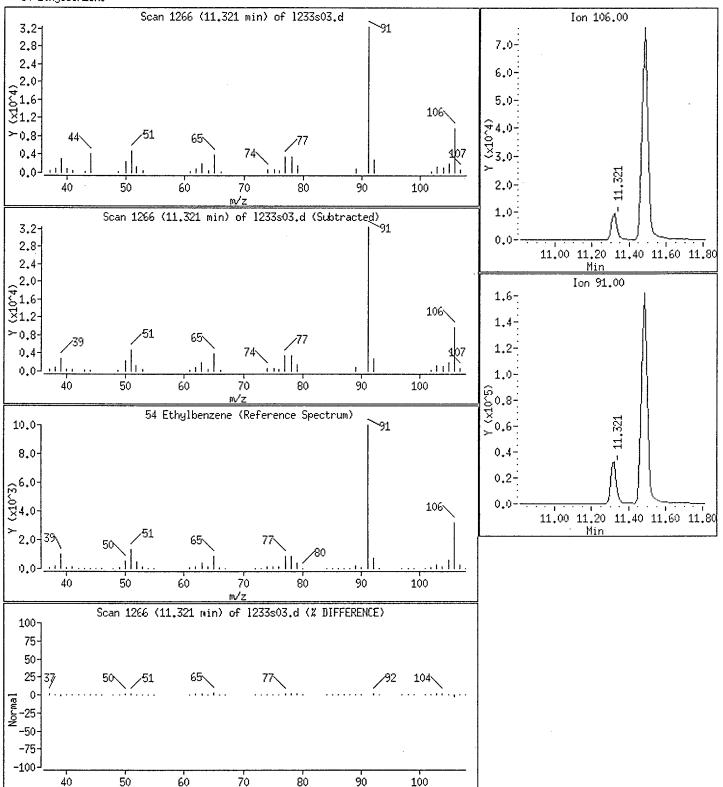
Sample Info: 9508719-02A-8240W/10X

Purge Volume: 5.0

Operator: JC

Column phase: 30m, hp5ms,0.25u df





Date : 21-AUG-1995 12:18

Client ID:

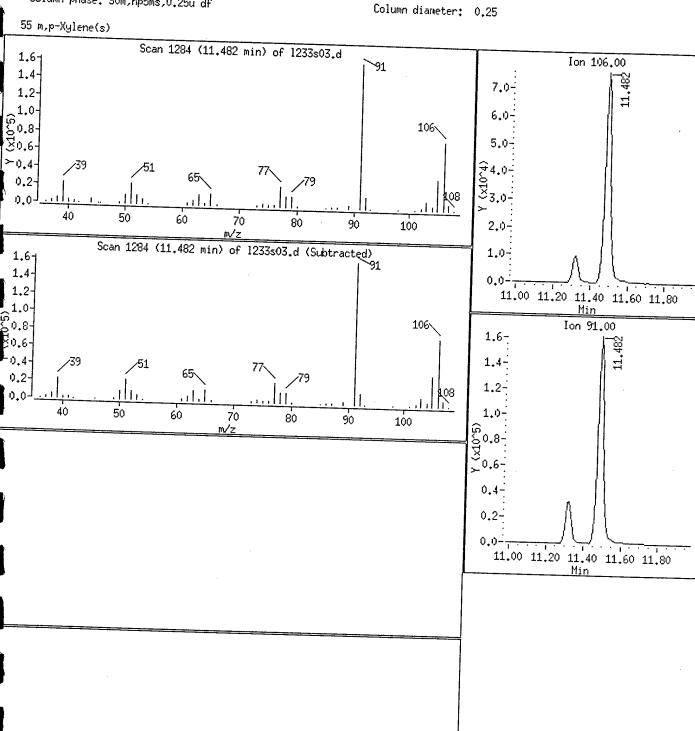
Sample Info: 9508719-02A-8240W/10X

Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

Operator: JC



Software Version: 3.2 <16C20>

Sample Name : 9508719-02B Sample Number: SC ;W;50

: 08/26/95 03:28 Time

Study : GROW; 1; PQL

Operator

Instrument : HP U

Channel: B A/D mV Range : 1000

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : 4153271317 Data Acquisition Time: 08/26/95 03:06

Delay Time : 0.00 min. End Time : 21.20 min. Sampling Rate : 1.0000 pts/sec

Raw Data File :  $l:\data\tchrom\btex\hp_u\UU\_681.raw$ Result File : l:\data\tchrom\btex\hp\_u\UU\_681.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc Sample file : L:\DATA\TCHROM\BTEX\METHODS\UWGO8215.smp
Sequence file : L:\DATA\TCHROM\BTEX\METHODS\BTEXU.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 50.00

## PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL (uV)	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT	RAW AMT. PURFID PPM
							Name	FFD	FURFIU FFM
1	2.455	16147.00	1674.37 BB	9.9999e5	1.8951	18.0096		0.0162	0.3602
2	3.147	37042.86	3741.46 BV	1.0000e6	1.8951	18.0096		0.0370	
3	3.401	36355.53	2901.03 VV	9.9999e5	1.8951	18.0096		0.0364	
4	3.867	5493.50	768.72 VV	4.7292e5	1.8951	18.0096	Benzene	0.0116	
5	4.252	385994.31	50677.25 VV	4184.9829	1.8951	18.0096	1,4-DIFLUOROBENZENE	92.2332	
6	4.793	1024079.25	98800.67 VB		1.8951	18.0096	TFT	0.0000	
7	10.881	18419.44	1276.90 BV	3.8270e5	1.8951	18.0096	Ethyl_Benzene	0.0481	0.3602
8	11.144	94979.06	7432.00 VB	8.7607e5	1.8951	18.0096	m - Xylene	0.1084	0.3602
9	13.843	5350.25	798.91 BV	1.0000e6	1.8951	18.0096		0.0054	0.3602
10	14.143	143779.27	38723.81 VE	1613.4181	1.8951	18.0096	4-BROMOFLUOROBENZENE	89.1147	0.3602
11	14.324	9587.00	2299.33 EV	1.0000e6	1.8951	18.0096		0.0096	0.3602
12	14.436	28917.14	5497.96 VV	1.0000e6	1.8951	18.0096		0.0289	0.3602
13	14.672	5380.74	1498.55 VV	1.0000e6	1.8951	18.0096		0.0054	0.3602
14	14.769	32664.98	10054.34 VV	1.0000e6	1.8951	18.0096		0.0327	0.3602
15	14.983	4058.09	1030.02 VV	1.0000e6	1.8951	18.0096		0.0041	0.3602
16	15.071	14886.60	5474.60 VV	1.0000e6	1.8951	18.0096		0.0149	0.3602
17	15.244	10943.65	2465.98 VV	1.0000e6	1.8951	18.0096		0.0109	0.3602
18	15.328	3179.74	941.53 VV	1.0000e6	1.8951	18.0096		0.0032	0.3602
19	15.396	5644.50	1290.08 VV	1.0000e6	1.8951	18.0096		0.0056	0.3602
20	15.530	4502.59	999.32 VV	9.9999e5	1.8951	18.0096		0.0045	0.3602
21	15.663	5875.80	1056.87 VV	1.0000e6	1.8951	18.0096		0.0059	0.3602
22	15.869	5878.67	1747.89 VB	1.0000e6	1.8951	18.0096		0.0059	0.3602
23	16.018	1486.00	608.67 BB	1.0000e6	1.8951	18.0096		0.0015	0.3602
		1900646.00	241760.19		43.5873	414.2202		181.7439	8.2844

### Group Report For :

Peak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT	RAW AMT. PURFID PPM
1 4 5 6 7	3.867 6.894 10.881 11.144 12.733	5493.50 0.00 18419.44 94979.06 0.00	1276.90 VV 7432.00 VB	4.7292e5 3.8270e5 8.7607e5	1.8951 1.8951 1.8951 1.8951 1.8951	1.1266 1.1266 1.1266	Benzene Toluene Ethyl_Benzene m - Xylene o-Xylene	0.0116 0.0000 0.0481 0.1084 0.0000	0.0225 0.0225 0.0225
•		118892.00	9477.62		9.4755	5.6328		0.1682	0.1127

Group Report For : SURROGATE

Peak #	Ret Time (min)	Area [uV-sec]	•	krea/ RF	VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	4.252 4.793 14.143	385994.31 1024079.25 143779.27	50677.25 BV 41 98800.67 VB 38723.81 VE 16		1.8951 1.8951 1.8951	14.7235	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	92.2332 0.0000 89.1147	

5.6853

44.1706

181.3479

0.8834

Report Stored in ASCII File: l:\data\tchrom\btex\hp\_u\UU\_\_681.TXO

### Chromatogram

Sample Name: 9508719-028

: l:\data\tchrom\btex\hp\_u\UU\_\_681.raw FileName

Method : BTEXU.ins

Start Time : 0.00 min Scale Factor:

End Time : 21.20 min

Plot Offset: 1 mV

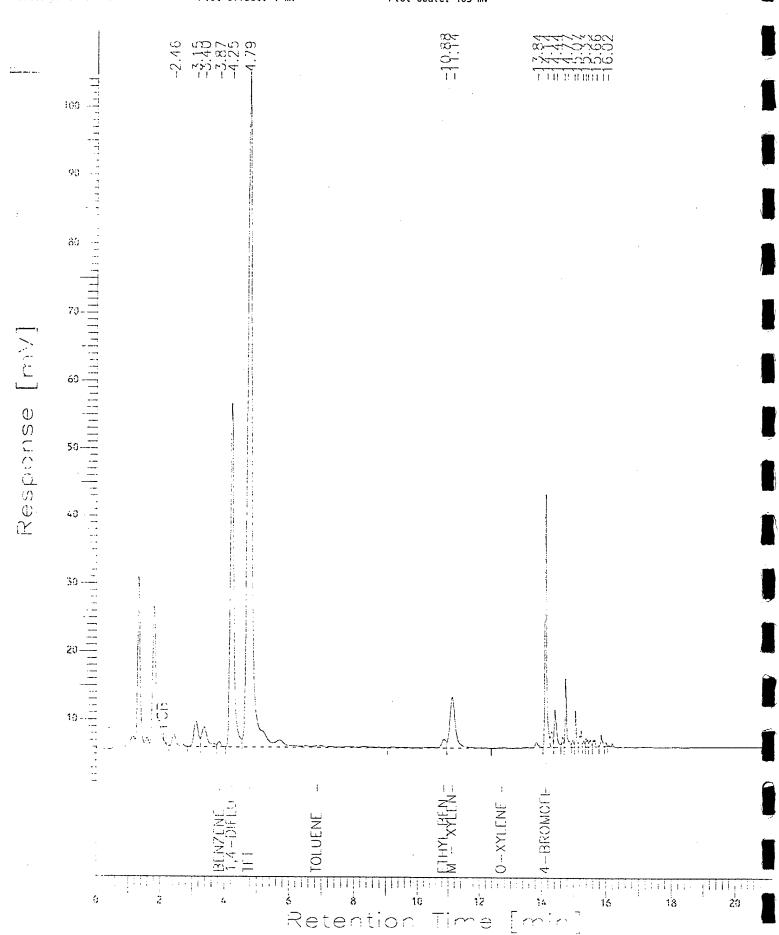
Sample #: SC ;W;50 Date : 08/26/95 03:28

Time of Injection: 08/26/95 03:06 Low Point: 0.67 mV High F

Plot Scale: 103 mV

Page 1 of 1

High Point: 104.08 mV



rtificate of Analysis No. H9-9508719-03

## HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

DATE: 09/01/95

Operational Tech 4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229 ATTN: Russ Cason

PROJECT: Minnesota ANG-B SI

PROJECT NO: 1315-193 SITE: Minneapolis, MN MATRIX: AQUEOUS

SAMPLED BY: Operational Technology DATE SAMPLED: 08/17/95 11:05:00 SAMPLE ID: 651-003 Equipment Blank

DATE RECEIVED: 08/18/95

PARAMETER	ANALYTICAL DATA		
GG / 177 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	RESULTS	DETECTION LIMIT	UNITS
GC/FID Gasoline-Purgeables WI LUFT GRO	ND	0.1	mg/L
Analyzed by: RR Date: 08/26/95 01:4	0:00		
GC/FID Diesel-Extractables WI LUFT DRO Analyzed by: SEG	0.05	0.1	mg/L
Date: 08/28/95 23:4	:00		
Liquid-liquid extraction METHOD 3510 *** Analyzed by: MF	08/23/95		
Date: 08/23/95 13:0	:00		•
Acid Digestion-Aqueous, ICP METHOD 3010 *** Analyzed by: AM Date: 08/23/95	08/23/95		
Lead, Total METHOD 6010 *** Analyzed by: JM	ND	0.1	mg/L
Date: 08/25/95			

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 17th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



## HOUSTON LABORATOR

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

ertificate of Analysis No. H9-9508719-03

Operational Tech 4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229 ATTN: Russ Cason

09/01/9

PROJECT: Minnesota ANG-B SI

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 651-003 Equipment Blank

PROJECT NO: 1315-193

MATRIX: AQUEOUS

DATE SAMPLED: 08/17/95 11:05:0

DATE RECEIVED: 08/18/95

				,
PARAMETER	NALYTICAL D			
Acetone		RESULTS	PQL*	UNITS
Benzene		ND	100	ug/L
Bromodichloromethane		ND	. 5	ug/L
Bromoform		ND	5	ug/L
Bromomethane		ND	5	ug/L
2-Butanone		ND	10	ug/L
Carbon Disulfide		ND	20	ug/L
Carbon Tetrachloride		ND	5	ug/L
Chlorobenzene		ND	5	ug/L
Chloroethane		ND	5	ug/L
2-Chloroethylvinylether		$\mathbf{N}\mathbf{D}$	10	ug/L
Chloroform		$\mathbf{N}\mathbf{D}$	10	ug/L
Chloromethane		ND	5	ug/L
Dibromochloromethane		ND	10	ug/L
1,1-Dichloroethane		ND	5	ug/L
1,1-Dichloroethene	•	ND	5	ug/L
1,2-Dichloroethane		ND	5	ug/L
total-1,2-Dichloroethene	•	ND		ug/L
1,2-Dichloropropane		ND	5 5	ug/L
Cig-1 3-Dichlemanne		ND	5	ug/L
cis-1,3-Dichloropropene		ND	5	ug/L
trans-1,3-Dichloropropene Ethylbenzene		ND	5	ug/L
2-Hexanone		ND	5	ug/L
Methylene Chloride		ND	10	ug/L
4-Methyl-2 Dent-		ND	5	ug/L
4-Methyl-2-Pentanone Styrene		ND	10	ug/L
		ND	5	ug/L
1,1,2,2-Tetrachloroethane Tetrachloroethene		ND	5	ug/L
Toluene		ND	5	ug/L
		ND	5	ug/L
1,1,1-Trichloroethane		ND	5	ug/L
1,1,2-Trichloroethane		ND	5	ug/L
Trichloroethene		ND	5	ug/L
Trichlorofluoromethane		ND	5	ug/L
Vinyl Acetate		ND	10	ug/L
Vinyl Chloride		ND	10	ug/L
Xylenes (total)		ND	5	
			_	ug/L

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

ertificate of Analysis No. H9-9508719-03

Operational Tech

SAMPLE ID: 651-003 Equipment Blank

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER	UPPER LIMIT
1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene	50 ug/L	100	76	114
	50 ug/L	100	88	110
	50 ug/L	100	86	115

ANALYZED BY: JC

DATE/TIME: 08/18/95 19:38:00

METHOD: 8240, Volatile Organics - Water

\* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Data File: /chem/l.i/1950818.b/1230s18.d

Report Date: 21-Aug-1995 16:44

Page 1

#### SPL Labs

Volatiles by 624/8240

Data file: /chem/l.i/1950818.b/1230s18.d Lab Smp Id: 9508719-03A

Inj Date : 18-AUG-1995 19:38

Operator : JC

Inst ID: 1.i

Smp Info : 9508719-03A-8240W/1X Misc Info : L230W1/L230B01/L230CW1

Comment

Method : /chem/l.i/1950818.b/lvoclpw.m

Meth Date : 21-Aug-1995 09:51 jimmy Cal Date : 18-AUG-1995 09:12

Quant Type: ISTD Cal File: 1230cw1.d

Als bottle: 24

Dil Factor: 1.000 Integrator: HP RTE

Target Version: 3.10

Compound Sublist: normal.sub

		0777				CONCENTRA	ATIONS
C	ompounds	QUANT SIG				ON-COLUMN	FINAL
=:	-	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
*	23 Bromochloromethane	====	==			======	======
*	32 1,4-Difluorobenzene	128.00	5.189	5.189 (1.000)	60215	250	
*		114.00	6.901	6.901 (1.000)	289782	250	
\$	50 Chlorobenzene-d5	117.00	11.073	11.064 (1.000)	225151	250	
•	26 1,2-Dichloroethane-d4	102.00	5.965	5.965 (1.149)	22279	250	
\$	43 Toluene-d8	98.00	9.120	9.120 (0.824)	303233		50
Ş	61 Bromofluorobenzene	95.00	12.748	12.740 (1.151)	107108	250	50
				( _ , _ ) _ /	TO/108	250	5.0

Data File: /chem/l.i/1950818.b/1230s18.d

Report Date: 21-Aug-1995 16:44

# SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1230s18.d

Lab Smp Id: 9508719-03A

Analysis Type: VOA Quant Type: ISTD

perator: JC Method File: /chem/l.i/1950818.b/lvoclpw.m

Misc Info: L230W1/L230B01/L230CW1

Calibration Date: 08/18/95 Calibration Time: 0912

Level: LOW

Sample Type: WATER

Ť						
23	DMPOUND  Bromochloromethane  1,4-Difluorobenzene  Chlorobenzene-d5	STANDARD ======= 70612 343192 272188	LOWER ======= 35306 171596	686384	SAMPLE ======= 60215 289782 225151	% DIFF ====== -14.72 -15.56 -17.28

COMPOUND  23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	STANDARD ======= 5.19 6.90 11.06	RT LOWER ======= 4.69 6.40 10.56	7.40	SAMPLE ====== 5.19 6.90 11.07	% DIFF ====== 0.00 0.00 0.08
--	--	---	------	---	--

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

UPPER LIMIT = + 0.50 minutes of internal standard RT.

LOWER LIMIT = - 0.50 minutes of internal standard RT.

Y (x10°5)

1,4-

1.2-

Software Version: 3.2 <16C20> Sample Name : 9508719-038

Sample Number: SC ;W;1

Time Study

: 08/26/95 02:02 : GROW; 1; PQL

Operator : RR

Instrument : HP\_U

Channel: B

A/D mV Range: 1000

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : 4153271317 Data Acquisition Time: 08/26/95 01:40

Delay Time : 0.00 min. End Time : 21.20 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_\_678.raw Result File : l:\data\tchrom\btex\hp\_u\UU\_678.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc Sample File : L:\DATA\TCHROM\BTEX\METHODS\UWG08215.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXU.seq

Inj. Valume

: 2 ul

Area Reject

: 100.00

Sample Amount : 1.0000 Dilution Factor : 1.00

PURFID Area Percent Report

Pea #	k Ret Time [min]	Area [uV-sec]	Height BL (uV)	Area/ Amount	RF	VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4	14.138	375002.13 972633.75 147667.00 3360.00	50174.98 BV 3 98489.83 VB - 38218.90 BB 1282.10 BB			1.8951 1.8951 1.8951 1.8951	0.2840	1,4-DIFLUOROBENZENE TFI 4-BROMOFLUOROBENZENE	94.3462 0.0000 96.3653 0.0034	
		1498662.88	188165.80	•	••••	7.5804	1.1361	• • • • • • • • • • • • • • • • • • • •	190.7148	1.1361

Group Report For :

Peak #	Ret Time (min)	Area [uV-sec]	Height BL (uV)	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 4 5 6 7	3.885 6.894 10.870 11.141 12.733	0.00 0.00 0.00 0.00 0.00	0.00 VV 0.00 VV 0.00 VV		1.8951 1.8951 1.8951 1.8951 1.8951	0.0000 0.0000 0.0000	Benzene Toluene Ethyl_Benzene m - Xylene o-Xylene	0.0000 0.0000 0.0000 0.0000 0.0000	0.0000 0.0000 0.0000
)		0.00	0.00	••••••	9.4755	0.0000	****************	0.0000	0.0000

Group Report For : SURROGATE

Peal	( Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	4.244 4.785 14.138	375002.13 972633.75 147667.00	50174.98 VV 98489.83 BB 38218.90 BB		1.8951 1.8951 1.8951	0.2834	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	94.3462 0.0000 96.3653	0.2834
		1495302.88	186883.70		5.6853	0.8501		190.7115	0.8501

Report Stored in ASCII File: l:\data\tchrom\btex\hp\_u\UU\_\_678.TXO

#### **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# ® tertificate of Analysis No. H9-9508719-04

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

09/01/95

PROJECT: Minnesota ANG-B SI

SITE: Minneapolis, MN

SAMPLED BY: Provided by SPL

SAMPLE ID: Trip Blank

PROJECT NO: 1315-193
MATRIX: WATER

DATE SAMPLED: 08/05/95 DATE RECEIVED: 08/18/95

ANALYTICAL DATA									
PARAMETER	RESULTS	PQL*	UNITS						
Acetone	ND	100	ug/L						
Benzene	ND	5	ug/L						
Bromodichloromethane	ND	5	ug/L						
Bromoform	ND	5	ug/L						
Bromomethane	ND	10	ug/L						
2-Butanone	ND	20	ug/L						
Carbon Disulfide	ND	5	ug/L						
Carbon Tetrachloride	ND	5	ug/L						
Chlorobenzene	ND	5	ug/L						
Chloroethane	ND	10	ug/L						
2-Chloroethylvinylether	ND	10	ug/L						
Chloroform	ND	5	ug/L						
Chloromethane	ND	10	ug/L						
Dibromochloromethane	ND	5	ug/L						
1,1-Dichloroethane	ND	5	ug/L						
1,1-Dichloroethene	ND	5	ug/L						
1,2-Dichloroethane	ND	5	ug/L						
total-1,2-Dichloroethene	ND	5	ug/L						
1,2-Dichloropropane	ND	5	ug/L						
cis-1,3-Dichloropropene	ND	5	ug/L						
trans-1,3-Dichloropropene	ND	5	ug/L						
Ethylbenzene	ND	5	ug/L						
2-Hexanone	ND	10	ug/L						
Methylene Chloride	ND	5	ug/L						
4-Methyl-2-Pentanone	ND	10	ug/L						
Styrene	ND	5	ug/L						
1,1,2,2-Tetrachloroethane	ND	5	ug/L						
Tetrachloroethene	ND	5	ug/L						
Toluene	ND	5	ug/L						
1,1,1-Trichloroethane	ND	5	ug/L						
1,1,2-Trichloroethane	ND	5	ug/L						
Trichloroethene	ND	5	ug/L						
Trichlorofluoromethane	ND	5	ug/L						
Vinyl Acetate	ND	10	ug/L						
Vinyl Chloride	ND	10	ug/L						
Xylenes (total)	ND	5	ug/L						
			~3/ <b>~</b>						

METHOD: 8240, Volatile Organics - Water (continued on next page)



#### HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

certificate of Analysis No. H9-9508719-04

Operational Tech

SAMPLE ID: Trip Blank

SURROGATES	AMOUNT SPIKED	<b>%</b>	LOWER LIMIT	UPPER
	SPIKED	RECOVERY	TIMIT	LIMIT
1,2-Dichloroethane-d4	50 ug/L	102	76	114
Toluene-d8	50 ug/L	102	88	110
4-Bromofluorobenzene	50 ug/L	96	86	115

ANALYZED BY: JC

DATE/TIME: 08/18/95 20:07:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Data File: /chem/l.i/l950818.b/l230s19.d

Report Date: 21-Aug-1995 16:44

#### SPL Labs

Volatiles by 624/8240

Pata file : /chem/l.i/l950818.b/l230s19.d

Lab Smp Id: 9508719-04A Inj Date : 18-AUG-1995 20:07

Inst ID: l.i

Operator : JC Smp Info : 9508719-04A-8240W/1X Misc Info : L230W1/L230B01/L230CW1

Comment

Method : /chem/l.i/1950818.b/lvoclpw.m

Meth Date : 21-Aug-1995 09:51 jimmy Quant Type: ISTD Cal Date : 18-AUG-1995 09:12 Cal File: 1230cw1.d

Als bottle: 25 Dil Factor: 1.000 Integrator: HP RTE

Compound Sublist: normal.sub Target Version: 3.10

						CC	NCENTR!	TIONS
	QUANT SIG					ON-C	COLUMN	FINAL
ompounds	MASS	RT	EXP RT I	REL RT	RESPONSE	(	ng)	( ug/L)
		==	======	=====	=======	===	====	
23 Bromochloromethane	128.00	5.199	5.189	(1.000)	60029		250	
32 1,4-Difluorobenzene	114.00	6.902	6.901	(1.000)	286659		250	
50 Chlorobenzene-d5	117.00	11.073	11.064	(1.000)	218360		250	
26 1,2-Dichloroethane-d4	102.00	5.975	5.965	(1.149)	22818		250	51
43 Toluene-d8	98.00	9.121	9.120	(0.824)	297239		260	51
61 Bromofluorobenzene	95.00	12.749	12.740	(1.151)	98673		240	48
	23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5 26 1,2-Dichloroethane-d4 43 Toluene-d8	ompounds       MASS         23 Bromochloromethane       128.00         32 1,4-Difluorobenzene       114.00         50 Chlorobenzene-d5       117.00         26 1,2-Dichloroethane-d4       102.00         43 Toluene-d8       98.00	ompounds         MASS         RT           23 Bromochloromethane         128.00         5.199           32 1,4-Difluorobenzene         114.00         6.902           50 Chlorobenzene-d5         117.00         11.073           26 1,2-Dichloroethane-d4         102.00         5.975           43 Toluene-d8         98.00         9.121	ompounds         MASS         RT         EXP RT           23 Bromochloromethane         128.00         5.199         5.189           32 1,4-Difluorobenzene         114.00         6.902         6.901           50 Chlorobenzene-d5         117.00         11.073         11.064           26 1,2-Dichloroethane-d4         102.00         5.975         5.965           43 Toluene-d8         98.00         9.121         9.120	ompounds         MASS         RT         EXP RT REL RT           23 Bromochloromethane         128.00         5.199         5.189 (1.000)           32 1,4-Difluorobenzene         114.00         6.902         6.901 (1.000)           50 Chlorobenzene-d5         117.00         11.073         11.064 (1.000)           26 1,2-Dichloroethane-d4         102.00         5.975         5.965 (1.149)           43 Toluene-d8         98.00         9.121         9.120 (0.824)	ompounds         MASS         RT         EXP RT REL RT         RESPONSE           23 Bromochloromethane         128.00         5.199         5.189 (1.000)         60029           32 1,4-Difluorobenzene         114.00         6.902         6.901 (1.000)         286659           50 Chlorobenzene-d5         117.00         11.073         11.064 (1.000)         218360           26 1,2-Dichloroethane-d4         102.00         5.975         5.965 (1.149)         22818           43 Toluene-d8         98.00         9.121         9.120 (0.824)         297239	QUANT SIG ON-Compounds MASS RT EXP RT REL RT RESPONSE ( 23 Bromochloromethane 128.00 5.199 5.189 (1.000) 60029 32 1,4-Difluorobenzene 114.00 6.902 6.901 (1.000) 286659 50 Chlorobenzene-d5 117.00 11.073 11.064 (1.000) 218360 26 1,2-Dichloroethane-d4 102.00 5.975 5.965 (1.149) 22818 43 Toluene-d8 98.00 9.121 9.120 (0.824) 297239	ompounds         MASS         RT         EXP RT REL RT         RESPONSE         ( ng)           23 Bromochloromethane         128.00         5.199         5.189 (1.000)         60029         250           32 1,4-Difluorobenzene         114.00         6.902         6.901 (1.000)         286659         250           50 Chlorobenzene-d5         117.00         11.073         11.064 (1.000)         218360         250           26 1,2-Dichloroethane-d4         102.00         5.975         5.965 (1.149)         22818         250           43 Toluene-d8         98.00         9.121         9.120 (0.824)         297239         260

Data File: /chem/l.i/1950818.b/l230s19.d

Report Date: 21-Aug-1995 16:44

#### SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1230s19.d

Lab Smp Id: 9508719-04A

Analysis Type: VOA Quant Type: ISTD Operator: JC

Method File: /chem/l.i/1950818.b/lvoclpw.m

Misc Info: L230W1/L230B01/L230CW1

Calibration Date: 08/18/95 Calibration Time: 0912

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	70612	171596	141224	60029	-14.99
32 1,4-Difluorobenzene	343192		686384	286659	-16.47
50 Chlorobenzene-d5	272188		544376	218360	-19.78

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.19	4.69	5.69	5.20	0.18
	6.90	6.40	7.40	6.90	0.01
	11.06	10.56	11.56	11.07	0.09

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument; 1.i

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# QUALITY CONTROL DOCUMENTATION

# 3A WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:

Contract:

Lab Code: SPL

Case No.: 9508655 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: 801-001MW

1,1-Dichloroethene     50     0     54     108     6       Trichloroethene     50     0     52     104     7       Benzene     50     0     50     100     76       Toluene     50     0     51     102     76       Chlorobenzene     50     0     51     102     76	Trichloroethene Benzene Toluene	50 50 50	SAMPLE CONCENTRATION (ug/L) ====================================	(ug/L) ====================================	REC # ====== 108 104 100 102	QC. LIMITS REC. ====== 61-145 71-120 76-127 76-125 75-130
---	---------------------------------------	----------------	--	--	---	---

COMPOUND  1.1-Dichloroethene  richloroethene  enzene  oluene  hlorobenzene
--

<sup>#</sup> Column to be used to flag recovery and RPD values with an asterisk

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

Ide/is Williams, QC Office

FORM III VOA-2

<sup>\*</sup> Values outside of QC limits

Matrix: Aqueous Sample ID: VLBLK Batch: L950818104642

Reported on: 08/22/95 15:51 Analyzed on: 08/18/95 09:40 Analyst: JC

# METHOD 8240/624 L230B01

Compound	Result	Detection Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
Acetone	ND	100	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
Carbon Disulfide	ND	5	ug/L
1,1-Dichloroethane	ир	5	ug/L
1,2-Dichloroethene (total)	ИД	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
Chloroform	ИD	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5 5	ug/L
Trichloroethene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L
	'		"

Notes

ND - Not detected.

Cynthia Schreiner, QC Officer

# SPL Blank QC Report

page

Matrix: Aqueous Sample ID: VLBLK

Batch: L950818104642

Reported on: 08/22/95 15: Analyzed on: 08/18/95 09:40

Analyst: JC

METHOD 8240/624 L230B01

Compound	Result	Detection Limit	
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	102	88-110	% Recovery
Toluene-d8	101		% Recovery
Bromofluorobenzene	87		% Recovery

Samples in Batch 9508719-01 9508719-02 9508719-03 9508719-04 <a href="Notes">Notes</a>

ND - Not detected.

Cynthia Schreiner, QC Officer

Data File: /chem/l.i/1950818.b/1230b01.d

Report Date: 18-Aug-1995 10:55

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950818.b/1230b01.d

Lab Smp Id: VLBLK

Inj Date : 18-AUG-1995 09:40

Operator : JC Inst ID: 1.i

Smp Info : VLBLK-8240W/1X Misc Info : L230W1//L230CW1

Comment

Method : /chem/l.i/l950818.b/lvoclpw.m Meth Date : 18-Aug-1995 10:53 jimmy ( Quant Type: ISTD Cal Date : 18-AUG-1995 09:12 Cal File: 1230cw1.d Als bottle: 3 QC Sample: BLANK

Dil Factor: 1.000 Integrator: HP RTE

Compound Sublist: all.sub

Target Version: 3.10

_								C	ONCENTRA	ATIONS
			QUANT SIG					ON-C	COLUMN	FINAL
	Compo	unds	MASS	RT	EXP RT	REL RT	RESPONSE	(	ng)	( ug/L)
	*====	2. 1. 1. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	====	**	****	****	*****	**		*****
_	* 23	Bromochloromethane	128.00	5.193	5.189	(1.000)	66893		250	
_	\$ 26	1,2-Dichloroethane-d4	102.00	5.968	5.965	(1.149)	25426		250	51
	* 32	1,4-Difluorobenzene	114.00	6.904	6.901	(1.000)	326871		250	
	\$ 43	Toluene-d8	98.00	9.124	9.120	(0.824)	343672		250	51
	* 50	Chlorobenzene-d5	117.00	11.067	11.064	(1.000)	254159		250	
	\$ 61	Bromofluorobenzene	95.00	12.743	12.740	(1.151)	105010		220	44

Data File: /chem/l.i/1950818.b/1230b01.d

Report Date: 18-Aug-1995 10:54

#### SPL Labs

### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1230b01.d Lab Smp Id: VLBLK Analysis Type: VOA

Quant Type: ISTD

Operator: JC Method File: /chem/l.i/1950818.b/lvoclpw.m

Misc Info: L230W1//L230CW1

Calibration Date: 08/18/95 Calibration Time: 0912

Level: LOW

Sample Type: WATER

			LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
23 Bromochloromethane	70612	35306	141224	66893	-5.27
32 1,4-Difluorobenzene	343192	171596	686384	326871	-4.76
50 Chlorobenzene-d5	272188	136094	544376	254159	-6.62
					1
					•

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.19 6.90 11.06	4.69 6.40 10.56	7.40	5.19 6.90 11.07	0.06 0.04 0.03

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/l.i/1950821.b/1233b01.d Page 1

Report Date: 21-Aug-1995 10:24

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950821.b/1233b01.d

Lab Smp Id: Inj Date : 21-AUG-95 10:03

: JC Operator Inst ID: 1.i

Smp Info : VLBLK-8240W/1X Misc Info : L233W1//L233CW1

Comment

Method : /chem/l.i/1950821.b/lvoclpw.m Meth Date : 21-Aug-1995 10:11 jimmy ( Quant Type: ISTD Cal Date : 21-AUG-1995 09:36 Cal File: 1233cw1.d

Als bottle: 3

Dil Factor: 1.000 Integrator: HP RTE

Compound Sublist: normal.sub

Target Version: 3.10

						CONCENTRA	ATIONS
	QUANT SIG					ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ug/L)
z , , , , , , , , , , , , , , , , , , ,	2 2 2 2	==	=====		======	252225	
* 23 Bromochloromethane	128.00	5.074	5.065	(1.000)	63523	250	
* 32 1,4-Difluorobenzene	114.00	6.795	6.785	(1.000)	303350	250	
* 50 Chlorobenzene-d5	117.00	10.966	10.966	(1.000)	241713	250	
\$ 26 1,2-Dichloroethane-d4	102.00	5.850	5.840	(1.153)	23283	240	49
\$ 43 Toluene-d8	98.00	9.014	9.014	(0.822)	318292	250	50
\$ 61 Bromofluorobenzene	95.00	12.642	12.642	(1.153)	96728	220	44

Data File: /chem/l.i/1950821.b/1233b01.d

Report Date: 21-Aug-1995 10:24

## SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

strument ID: l.i Le File ID: 1233b01.d Calibration Date: 08/21/95

Calibration Time: 0936

Lab Smp Id:

Level: LOW

Analysis Type: VOA Quant Type: ISTD Operator: JC

Sample Type: WATER

Method File: /chem/l.i/1950821.b/lvoclpw.m

Misc Info: L233W1//L233CW1

-			AREA	LIMIT		
	COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
		=======	=======	=======	=======	======
•	23 Bromochloromethane	66567	33284	133134	63523	-4.57
ŀ	32 1,4-Difluorobenzene	322888	161444	645776	303350	-6.05
	50 Chlorobenzene-d5	258976	129488	517952	241713	-6.67

		-			
		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
23 Bromochloromethane	5.06	4.56	5.56	5.07	0.19
32 1,4-Difluorobenzene	6.79	6.29	7.29	6.79	0.14
50 Chlorobenzene-d5	10.97	10.47	11.47	10.97	0.00
					,
·	· ———	l	·		,

AREA UPPER LIMIT = +100% of internal standard area.

ALEA LOWER LIMIT = - 50% of internal standard area.

RY UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

0,25 -Bromofluorobenzene (12,651) Operator: JC Column diameter: Instrument: 1.i /chem/l.i/1950821.b/1233b01.d Chlorobenzene-d5 (10,966) Toluene-d8 (9,014) 1/4-Difluorobenzene (6,795) Data File: /chem/1.i/1950821.b/1233b01.d Date : 21-AUG-95 10:03 -1.2-Dichloroethane-d4 (5.850)Client ID: Sample Info: VLBLK-8240W/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0.25u df -Bromochloromethane (5,074) 1.0-2.2-40.5)

Data File: /chem/l.i/1950818.b/1230bf1.d

Date : 18-AUG-95 08:57

Client ID:

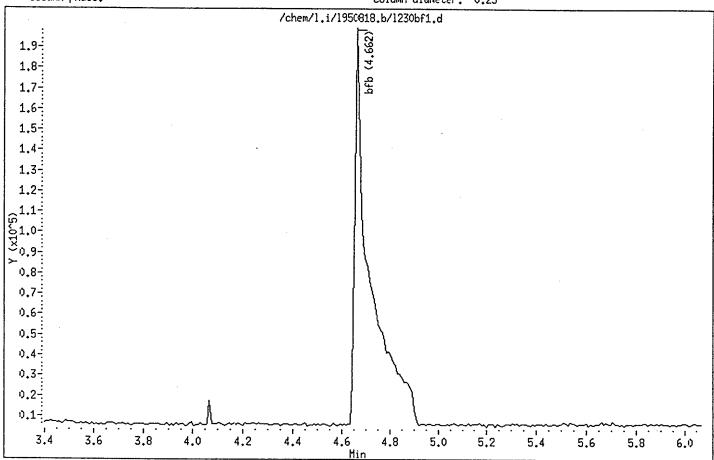
Sample Info: 50 NG BFB

Instrument: 1.i

Page 1

Operator:

Column phase: Column diameter: 0.25



Data File: /chem/l.i/1950818.b/1230bf1.d

Date: 18-AUG-95 08:57

Client ID:

Sample Info: 50 NG BFB

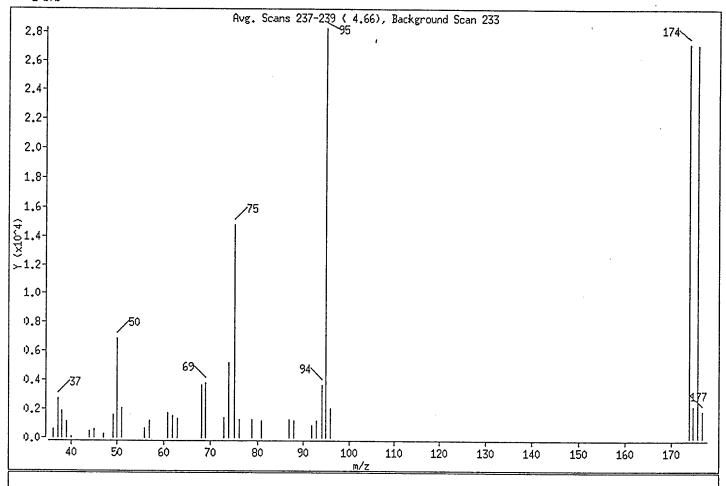
Instrument: 1.i

Operator:

Column phase:

1 bfb

Column diameter: 0.25



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE		
I I			·	 !
1 95 1	Base Peak, 100% relative abundance	1	100,00	!
I 50 I	15.00 - 40.00% of mass 95	1	24.32	I
l 75 l	30.00 - 60.00% of mass 95	ı	52.29	ı
1 96 1	5.00 - 9.00% of mass 95	i	7.24	ţ
173	Less than 2.00% of mass 174	1	0.00 ( 0.00)	i
l 174 l	50.00 - 120.00% of mass 95	ı	96.31	1
l 175 l	5.00 - 9.00% of mass 174	1	7.88 ( 8.18)	1
l 176 l	95.00 - 101.00% of mass 174	1	95.98 ( 99.65)	ı
l 177 l	5.00 - 9.00% of mass 176	1	6.63 ( 6.91)	1

Data File: /chem/l.i/1950818.b/1230bf1.d

Date : 18-AUG-95 08:57

Client ID:

Instrument: 1.i

Sample Info: 50 NG BFB

Operator:

Column phase:

Column diameter: 0.25

Data File: 1230bf1.d

Spectrum : Avg. Scans 237-239 ( 4.66), Background Scan 233

Largest m/z: 94.95 Number of peaks: 35

	m/z	Υ	m/z	Υ	m/z	Y .	m/z	Y
1	36.05	628 1	49,90	6880 1		1435 I 9	 2 <b>.</b> 90	1212
1	37.05	2730 1	50.90	2105 I	73.95	5194 I 9	4.05	3661 I
1	37.95	1881 I	55.95	697 1	75.05	14791   9	4.95	28288 1
1	39.05	1132	56.95	1204 I	76.05	1275 I 9	5.95	2047 1
1	39.95	87 1	60,95	1740		1277   17	- • • •	27240
1	44.00	439 I	61.95	1554 l		1209   17		2229
į	45.00	588 I	62,95	1335 I	86.90	1251   17	5.85	27144 I
1	47.00	284 1	68.00	3709 1	88.00	1225   17	6.95	1875 I
 +-	49.00	1604 I	69.00	3807 I		886 I		 

Data File: /chem/1.i/1950821.b/1233bf1.d

Date: 21-AUG-95 09:22

Client ID:

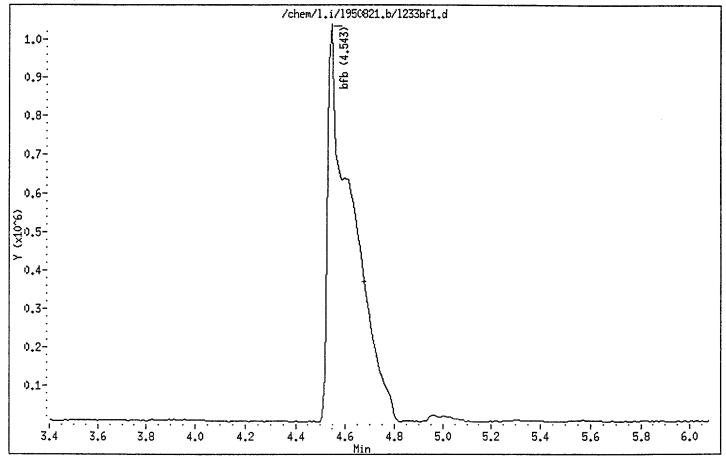
Instrument: 1.i

Sample Info: 50 NG BFB

Operator:

Column phase:

Column diameter: 0.25



Page 1

Date : 21-AUG-95 09:22

Client ID:

Sample Info: 50 NG BFB

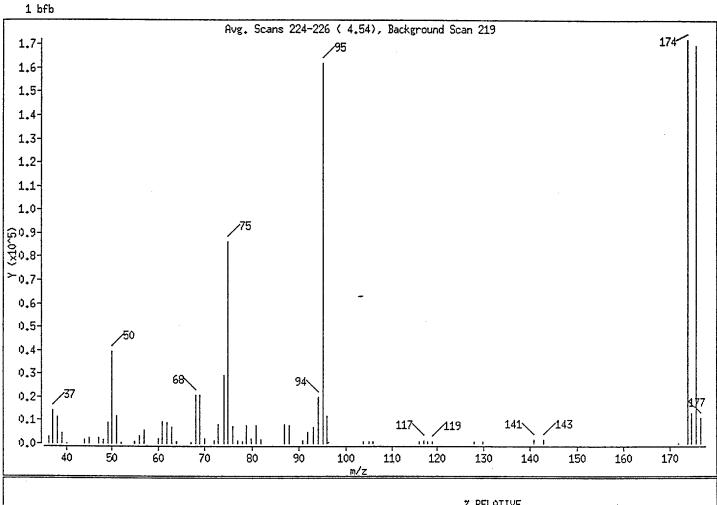
Instrument: 1.i

Operator:

Column phase:

Column diameter: 0.25

Page 2



m/e	ION ABUNDANCE CRITERIA		ABUNDANCE	
				+ !
95	Base Peak, 100% relative abundance	1	100.00	ł
50	15.00 - 40.00% of mass 95	ι	24.35	1
75	30.00 - 60.00% of mass 95	1	53,39	l
96	5.00 - 9.00% of mass 95	1	7.22	ı
173	Less than 2.00% of mass 174	1	0.00 ( 0.00)	1
174	50.00 - 120.00% of mass 95	1	106.37	ı
175	5.00 - 9.00% of mass 174	ı	8.01 ( 7.53)	١
176	95.00 - 101.00% of mass 174	1	104.81 ( 98.54)	ı
177	1 5.00 - 9.00% of mass 176	1	6.79 ( 6.47)	1

Data File: /chem/l.i/1950821.b/1233bf1.d

Date : 21-AUG-95 09:22

Client ID:

Instrument: 1.i

Sample Info: 50 NG BFB

Operator:

Column phase:

Column diameter: 0.25

Data File: 1233bf1.d

Spectrum: Avg. Scans 224-226 ( 4.54), Background Scan 219

Largest m/z: 173.95 Number of peaks: 60

	m/z	Y		m/z	Υ		m/z	Υ		m/z	Y	
1	36.05	2880	1	59,95	1992	1	78.85	7818	1	116.95	1126	1
1	36.95	14266	1	60.95	9285	1	79.95	1903	1	117.85	688	i
1	37.95	11586	1	61.95	9136	ı	80.85	7790	1	118.85	941	1
1	38.95	4573	ı	62.95	6866	I	81.85	1498	ı	127.90	624	ı
1	40,05	91	1	64.00	689	1	86.90	8216	1	129.80	663	I
1	44.00	1441	+- 	67.00	234	1	87.90	7929	1	140.85	1718	+
i	45.00	2348		68.00	20816	i	90.80	1174	ı	142.85	1731	i
Ĺ	47.00	2538		69.00	20688		91.90	4723	ı	171.90	173	i
1	48.00	1477	ĺ	70.00	1835	1	93.00	7071	ł	173.95	172160	ł
1	49,00	8877	I	72,00	1147	i	94.05	20040	l	174.95	12961	i
+	E0 00	70446	+-	70 00	8159	+	95.05	161856	+	175.95	160600	+
1	50,00	39416	•	72.90	-				1		169600	
-	51.00		1	74.05	29376		95.95	11684	•	176.95	10983	1
!	51.90	605	•	74.95		1	103.90	835				1
!	54.95	801		75.95	7316			883				1
 +-	55.95	3439	 +-	76.95	1367	1	105.90	930	 +-			+
 	56.95	5788	1	77.95	677	1	115.95	664	1			1

port Date : 24-Aug-1995 11:11

#### SPL Labs

#### INITIAL CALIBRATION DATA

**S**art Cal Date : 17-AUG-1995 15:45 End Cal Date : 17-AUG-1995 17:36

Grigin : ISTD : Included Target Version : 3.10

Integrator : HP RTE
thod file : /chem/l.i/l950818.b/lvoclpw.m

■1 Date : 24-Aug-1995 11:08 jimmy

Curve Type : Average

# llibration File Names:

Level 1: /chem/l.i/l950817.b/l229iw1.d Level 2: /chem/l.i/l950817.b/l229iw2.d Level 3: /chem/l.i/l950817.b/l229iw3.d Level 4: /chem/l.i/l950817.b/l229iw4.d Level 5: /chem/l.i/l950817.b/l229iw5.d

!	50	100	250	500	1000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
	=======			=======			======
1 Chloromethane	2.58976	2.59404	2.60486	2.48539	2.42595	2.54000	3.149
2 Vinyl Chloride	2.32371	2.22549	2.10314	1.89447	1.65235	2.03983	13.208
3 Bromomethane	1.43322	1.37161	1.39258	1.37236	1.33533	1.38102	2.588
4 Chloroethane	1.09973	1.24271	1.29247	1.26887	1.24596	1.22995	6.138
7 Trichlorofluoromethane	1.45565	1.56390	1.72919	1.72613	1.80039	1.65505	8.531
8 Acetone	0.19817	0.21681	0.31211	0.32047	0.32940	0.27539	22.744
11 1,1-Dichloroethene	1.35792	1.35171	1.34070	1.32523	1.36071	1.34725	1.077
13 Methylene Chloride	1.75513	1.69217	1.68887	1.66888	1.67948	1.69691	1.991
14 Carbon Disulfide	5.00269	5.33905	5.54382	5.59681	5.73380	5.44324	5.221
15 trans-1,2-Dichloroethene	1.26229	1.27753	1.33454	1.41434	1.43916	1.34557	5.896
17 1,1-Dichloroethane	2.97227	3.01546	3.11019	3.12283	3.09974	3.06410	2.167
M 18 1,2-Dichloroethene (total)	1.53391	1.55615	1.60368	1.66283	1.68359	1.60803	4.044
19 Vinyl Acetate	4.02197	3.63241	3.37175	3.50313	3.55721	3.61729	6.785
20 2-Butanone	1.64130	1.21697	2.01546	1.94655	1.90298	1.74465	18.756
21 cis-1,2-Dichloroethene	1.80553	1.83477	1.87282	1.91133	1.92802	1.87049	2.736
24 Chloroform	3.06498	3.16947	3.19551	3.20354	3.22174	3.17105	1.962
27 1,1,1-Trichloroethane	0.39815	0.42300	0.42748	0.43255	0.44517	0.42527	4.064
28 1,2-Dichloroethane	2.73149	2.73693	2.90328	2.88474	2.90167	2.83162	3.152
30 Benzene	1.37895	1.41839	1.42282	1.43975	1.43831	1.41964	1.733
31 Carbon Tetrachloride	0.31685	0.34182	0.35615	0.36321	0.37546	0.35070	6.414
34 1,2-Dichloropropane	0.38944	0.40349	0.40376	0.40340	0.41040	0.40210	1.909
35 Trichloroethene	0.31571	0.34304	0.34183	0.34398	0.35455	0.33982	4.239
37 Bromodichloromethane	0.38479	0.39540	0.42178	0.43154	0.44311	0.41533	5.905
39 2-Chloroethylvinylether	0.16006	0.17410	0.19119	0.20229	0.21836	0.18920	12.118
40 4-Methyl-2-Pentanone	0.41505	0.41347	0.62789	0.64558	0.64377	0.54915	22.459
41 cis-1,3-Dichloropropene	0.46569	0.48998	0.51654	0.53100	0.54373	0.50939	6.195
42 trans-1,3-Dichloropropene	0.37080	0.41914	0.44976	0.46858	0.48825	0.43931	10.469
	<u> </u>	]	l	l			1

#### SPL Labs

## INITIAL CALIBRATION DATA

Start Cal Date : 17-AUG-1995 15:45 End Cal Date : 17-AUG-1995 17:36

Quant Method : ISTD
Origin : Included
Target Version : 3.10
Integrator : HP RTE

Method file : /chem/l.i/1950818.b/lvoclpw.m

Cal Date : 24-Aug-1995 11:08 jimmy

Curve Type : Average

1	50	100	250	500	1000	l	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
		-		=======			
44 Toluene	0.8382	5  0.91018	0.92054	0.91663	0.91599	0.90032	3.875
45 1,1,2-Trichloroethane	0.2477	9  0.26608	0.27708	0.27030	0.27117	0.26649	4.188
46 2-Hexanone	0.2485	2  0.28198	0.64799	0.72091	0.73594	0.52707	45.839
47 Dibromochloromethane	0.2590	8  0.28586	0.30160	0.32022	0.33523	0.30040	9.883
49 Tetrachloroethene	0.3395	2  0.34315	0.33703	0.34178	0.34090	0.34047	0.686
52 Chlorobenzene	0.8783	0  0.94161	0.95289	0.95207	0.97105	0.93918	3.795
M 53 Xylene (Total)	0.5150	2  0.54866	0.56793	0.57601	0.58107	0.55774	4.819
54 Ethylbenzene	0.4308	1  0.45459	0.45721	0.47054	0.47719	0.45807	3.901
55 m,p-Xylene(s)	0.5197	7  0.54721	0.57241	0.57867	0.58208	0.56002	4.701
56 Bromoform	0.2102	2  0.23770	0.26252	0.28799	0.30770	0.26123	14.867
57 Styrene	0.7453	1 0.82995	0.91854	0.92004	0.95260	0.87329	9.713
59 o-Xylene	0.5055	4  0.55156	0.55899	0.57069	0.57905	0.55317	5.178
60 1,1,2,2-Tetrachloroet	hane   0.4424	9  0.46092	0.48029	0.47858	0.49578	0.47161	4.333
=======================================	==========						
\$ 26 1,2-Dichloroethane-d4	0.3814	1  0.39325	0.39665	0.40397	0.40509	0.39608	2.418
\$ 43 Toluene-d8	1.2357	0  1.27871	1.30306	1.30976	1.31941	1.28933	2.601
S 61 Bromofluorobenzene	0.4063	4  0.42926	0.45450	0.47396	0.48895	0.45060	7.399
1		_l		lt			

Data File: /chem/l.i/1950817.b/1229iw1.d

Report Date: 24-Aug-1995 11:06

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950817.b/l229iw1.d

Lab Smp Id: VSTD010

Inj Date : 17-AUG-1995 15:45

Operator : JC Inst ID: 1.i

Smp Info : VSTD010-8240W/1X Misc Info : L229W2//L228IW3

Comment :

Method : /chem/l.i/l950817.b/lvoclpw.m

Meth Date: 24-Aug-1995 11:06 jimmy Quant Type: ISTD

Als bottle: 2 Calibration Sample, Level: 1

Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					AMOUN	ITS
	QUANT SIG				CAL-AMT	ON-COL
iompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	====	==	=======================================	======		======
1 Chloromethane	50.00	1.739	1.739 (0.336)	35559	50	50
2 Vinyl Chloride	62.00	1.855	1.855 (0.358)	31906	50	50
3 Bromomethane	94.00	2.087	2.087 (0.403)	19679	50	50
4 Chloroethane	64.00	2.167	2.167 (0.418)	15100	50	50
7 Trichlorofluoromethane	101.00	2.586	2.586 (0.499)	19987	50	50 (M)
8 Acetone	58.00	2.577	2.577 (0.498)	2721	50	50 (M)
11 1,1-Dichloroethene	96.00	2.996	2.996 (0.578)	18645	50	50 (M)
13 Methylene Chloride	84.00	3.219	3.219 (0.621)	24099	50	50
1 18 1,2-Dichloroethene (total)	96.00			42123	100	100
14 Carbon Disulfide	76.00	3.353	3.353 (0.647)	68690	50	50
15 trans-1,2-Dichloroethene	96.00	3.781	3.781 (0.730)	17332	50	50
17 1,1-Dichloroethane	63.00	4.119	4.119 (0.795)	40811	50	50
19 Vinyl Acetate	43.00	4.217	4.217 (0.814)	55224	50	50
20 2-Butanone	43.00	4.592	4.592 (0.886)	22536	50	50
21 cis-1,2-Dichloroethene	96.00	4.921	4.921 (0.950)	24791	50	50
24 Chloroform	83.00	5.198	5.198 (1.003)	42084	50	50
27 1,1,1-Trichloroethane	97.00	5.991	5.991 (0.869)	28713	50	50
28 1,2-Dichloroethane	62.00	6.071	6.071 (1.172)	37505	50	50
30 Benzene	78.00	6.428	6.428 (0.933)	99445	50	50
31 Carbon Tetrachloride	117.00	6.455	6.455 (0.937)	22850	50	50
34 1,2-Dichloropropane	63.00	7.417	7.417 (1.076)	28085	50	50
35 Trichloroethene	130.00	7.453	7.453 (1.081)	22768	50	50
37 Bromodichloromethane	83.00	7.640	7.640 (1.109)	27750	50	50
39 2-Chloroethylvinylether	63.00	8.246	8.246 (1.197)	11543	50	50
40 4-Methyl-2-Pentanone	43.00	8.478	8.478 (1.230)	29932	50	50
41 cis-1,3-Dichloropropene	75.00	8.505	8.505 (1.234)	33584	50	50
42 trans-1,3-Dichloropropene	75.00	9.138	9.138 (1.326)	26741	50	50
44 Toluene	92.00	9.218	9.218 (0.833)	47411	50	50
45 1,1,2-Trichloroethane	83.00	9.298	9.298 (1.349)	17870	50	50

Data File: /chem/l.i/l950817.b/l229iw1.d Report Date: 24-Aug-1995 11:06

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
Co	mpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
==		====	==			======	
	46 2-Hexanone	43.00	9.690	9.690 (0.875)	17559	50	50 (M)
	47 Dibromochloromethane	129.00	9.931	9.931 (1.441)	18684	50	50
	49 Tetrachloroethene	164.00	10.270	10.270 (0.928)	19203	50	50
	52 Chlorobenzene	112.00	11.117	11.117 (1.004)	49676	50	50
М	53 Xylene (Total)	106.00			87388	150	150
	54 Ethylbenzene	106.00	11.420	11.420 (1.031)	24366	50	50
	55 m,p-Xylene(s)	106.00	11.589	11.589 (1.047)	58795	100	100
	56 Bromoform	173.00	11.999	11.999 (1.084)	11890	50	50
	57 Styrene	104.00	12.053	12.053 (1.089)	42154	50	50
	59 o-Xylene	106.00	12.106	12.106 (1.093)	28593	50	50
	60 1,1,2,2-Tetrachloroethane	83.00	12.454	12.454 (1.125)	25027	50	50
*	23 Bromochloromethane	128.00	5.180	5.180 (1.000)	68653	250	
*	32 1,4-Difluorobenzene	114.00	6.891	6.891 (1.000)	360582	250	
*	50 Chlorobenzene-d5	117.00	11.072	11.072 (1.000)	282796	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.964	5.964 (1.151)	5237	50	50
\$	43 Toluene-d8	98.00	9.120	9.120 (0.824)	69890	50	50
\$	61 Bromofluorobenzene	95.00	12.748	12.748 (1.151)	22982	50	50

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/l.i/1950817.b/1229iw1.d

Remort Date: 18-Aug-1995 09:50

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

instrument ID: 1.i File ID: 1229iw1.d Calibration Date: 08/17/95 Calibration Time: 1641

Analysis Type: VOA Quant Type: ISTD

Level: LOW

Sample Type: WATER

Operator: JC Method File: /chem/l.i/1950817.b/lvoclpw.m

1isc Info: L229W2//L228IW3

		AREA	LIMIT		
COMPOUND	STANDARD ·	LOWER	UPPER ·	SAMPLE	% DIFF
	=======	=======	=======	=======	======
3 Bromochloromethane	66088	33044	132176	68653	3.88
32 1,4-Difluorobenzene	340174	170087	680348	360582	6.00
50 Chlorobenzene-d5	276497	138248	552994	282796	2.28

	<del>-</del>			
	RT			
STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======	=======	=======	=======	======
5.19	4.69	5.69	5.18	-0.24
6.89	6.39	7.39	6.89	-0.05
11.07	10.57	11.57	11.07	0.05
	5.19 6.89	STANDARD LOWER ====================================	STANDARD LOWER UPPER 5.19 4.69 5.69 6.89 6.39 7.39	STANDARD LOWER UPPER SAMPLE 5.19 4.69 5.69 5.18 6.89 6.39 7.39 6.89

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/1.i/1950817.b/1229iw2.d

Report Date: 24-Aug-1995 11:06

#### SPL Labs

Volatiles by 624/8240

pata file : /chem/l.i/1950817.b/l229iw2.d

Lab Smp Id: VSTD020

Inj Date : 17-AUG-1995 16:13

perator : JC

mp Info : VSTD020-8240W/1X

Misc Info : L229W2//L228IW3

Comment

: /chem/l.i/1950817.b/lvoclpw.m iethod

Heth Date: 24-Aug-1995 11:06 jimmy

Cal Date : 17-AUG-1995 16:13

ls bottle: 3

il Factor: 1.000

Integrator: HP RTE Target Version: 3.10

Inst ID: 1.i

Quant Type: ISTD

Cal File: 1229iw2.d

Calibration Sample, Level: 2

Compound Sublist: normal.sub

			•		AMOUN	TS
mpounds	QUANT SIG				CAL-AMT	ON-COL
	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
1 Chloromethane	===	*=	****** =====	======	======	======
2 Vinyl Chloride	50.00	1.752	1.752 (0.337)	69730	100	100
3 Bromomethane	62.00	1.859	1.859 (0.358)	59823	100	98
4 Chloroethane	94.00	2.091	2.091 (0.403)	36870	100	98
7 Trichlorofluoromethane	64.00	2.180	2.180 (0.420)	33405	100	110
	101.00	2.572	2.572 (0.495)	42039	100	100 (M)
8 Acetone	58.00	2.590	2.590 (0.499)	5828	100	100 (M)
11 1,1-Dichloroethene	96.00	3.036	3.036 (0.585)	36335	100	100 (M)
13 Methylene Chloride	84.00	3.223	3.223 (0.621)	45487	100	98
18 1,2-Dichloroethene (total)	96.00			83661	200	200
14 Carbon Disulfide	76.00	3.366	3.366 (0.648)	143518	100	100
15 trans-1,2-Dichloroethene	96.00	3.802	3.802 (0.732)	34341	100	
17 1,1-Dichloroethane	63.00	4.132	4.132 (0.796)	81058	100	100
19 Vinyl Acetate	43.00	4.230	4.230 (0.815)	97642		100
20 2-Butanone	43.00	4.605	4.605 (0.887)	32713	100	95
21 cis-1,2-Dichloroethene	96.00	4.934	4.934 (0.950)		100	85
24 Chloroform	83.00	5.211	5.211 (1.003)	49320	100	100
27 1,1,1-Trichloroethane	97.00	5.995	5.995 (0.868)	85198	100	100
28 1,2-Dichloroethane	62.00	6.075		58150	100	100
30 Benzene	78.00	6.441	6.075 (1.170)	73571	100	100
31 Carbon Tetrachloride	117.00		6.441 (0.933)	194988	100	100
34 1,2-Dichloropropane	63.00	6.468	6.468 (0.937)	46991	100	100
35 Trichloroethene	130.00	7.430	7.430 (1.076)	55468	100	100
37 Bromodichloromethane		7.457	7.457 (1.080)	47158	100	100
39 2-Chloroethylvinylether	83.00	7.644	7.644 (1.107)	54356	100	100
10 4-Methyl-2-Pentanone	63.00	8.250	8.250 (1.195)	23934	100	100
11 cis-1,3-Dichloropropene	43.00	8.482	8.482 (1.228)	56840	100	100
	75.00	8.509	8.509 (1.232)	67359	100	100
42 trans-1,3-Dichloropropene	75.00	9.142	9.142 (1.324)	57620	100	110
4 Toluene	92.00	9.222	9.222 (0.833)	100757	100	100
15 1,1,2-Trichloroethane	83.00	9.302	9.302 (1.347)	36579	100	100

Data File: /chem/l.i/l950817.b/l229iw2.d Report Date: 24-Aug-1995 11:06

						AMOUN	TS
C	Compounds	QUANT SIG				CAL-AMT	ON-COL
	•	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
= :			==			======	
	46 2-Hexanone	43.00	9.686	9.686 (0.874)	31215	100	95
	47 Dibromochloromethane	129.00	9.935	9.935 (1.439)	39298	100	
	49 Tetrachloroethene	164.00	10.274	· · · · · · · · · · · · · · · · · · ·	37987	100	100
	52 Chlorobenzene	112.00	11.121		104237		100
M	53 Xylene (Total)	106.00		(1.001)	182210	100	100
	54 Ethylbenzene	106.00	11.424	11.424 (1.031)		300	310
	55 m,p-Xylene(s)	106.00	11.584	11.584 (1.046)	50323	100	100
	56 Bromoform	173.00	12.003		121152	200	200
	57 Styrene	104.00		12.003 (1.084)	26313	100	110
	59 o-Xylene		12.048	12.048 (1.088)	91876	100	100
	· <del>-</del>	106.00	12.110	12.110 (1.093)	61058	100	100
	60 1,1,2,2-Tetrachloroethane	83.00	12.458	12.458 (1.125)	51024	100	100
*	23 Bromochloromethane	128.00	5.193	5.193 (1.000)	67202	250	
*	32 1,4-Difluorobenzene	114.00	6.904	6.904 (1.000)	343679	250	
*	50 Chlorobenzene-d5	117.00	11.076	11.076 (1.000)	276751	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.968	5.968 (1.149)	10571	100	
\$	43 Toluene-d8	98.00	9.124	9.124 (0.824)	141554		100
\$	61 Bromofluorobenzene	95.00	12.743	12.743 (1.150)		100	100
			12.743	12.143 (1.150)	47519	100	100

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/l.i/1950817.b/1229iw2.d

port Date: 18-Aug-1995 09:50

#### SPL Labs

### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

strument ID: l.i Lab File ID: 1229iw2.d Lab Smp Id: VSTD020 Calibration Date: 08/17/95 Calibration Time: 1641

Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

O erator: JC

Method File: /chem/l.i/l950817.b/lvoclpw.m Misc Info: L229W2//L228IW3

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
23 Bromochloromethane	66088	33044	132176	67202	1.69
32 1,4-Difluorobenzene	340174	170087	680348	343679	1.03
■50 Chlorobenzene-d5	276497	138248	552994	276751	0.09

, .			-			
			RT	LIMIT		
-	COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=		=======	=======	=======	=======	======
	23 Bromochloromethane	5.19	4.69	5.69	5.19	0.01
	32 1,4-Difluorobenzene	6.89	6.39	7.39	6.90	0.14
	50 Chlorobenzene-d5	11.07	10.57	11.57	11.08	0.09
1						

AREA UPPER LIMIT = +100% of internal standard area.

ATEA LOWER LIMIT = - 50% of internal standard area.

UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT. Data File: /chem/l.i/1950817.b/1229iw3.d

Peport Date: 24-Aug-1995 11:06

#### SPL Labs

Volatiles by 624/8240

ata file : /chem/l.i/l950817.b/l229iw3.d

ab Smp Id: VSTD050

Inj Date : 17-AUG-1995 16:41

⊕perator : JC Inst ID: l.i

mp Info : VSTD050-8240W/1X Wisc Info : L229W2//L228IW3

Comment :

ethod : /chem/l.i/l950817.b/lvoclpw.m

Heth Date: 24-Aug-1995 11:06 jimmy Quant Type: ISTD Cal Date: 17-AUG-1995 16:41 Cal File: 1229iw3.d

Cal Date : 17-AUG-1995 16:41 Cal File: 1229iw3.d Calibration Sample, Level: 3

il Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

<b>=</b> 10					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
mpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	====	==		******	======	****
1 Chloromethane	50.00	1.751	1.751 (0.337)	172150	250	250
2 Vinyl Chloride	62.00	1.858	1.858 (0.358)	138992	250	240
3 Bromomethane	94.00	2.090	2.090 (0.403)	92033	250	250
4 Chloroethane	64.00	2.162	2.162 (0.416)	85417	250	270
7 Trichlorofluoromethane	101.00	2.563	2.563 (0.494)	114279	250	270 (M)
8 Acetone	58.00	2.580	2.580 (0.497)	20627	250	320
11 1,1-Dichloroethene	96.00	2.973	2.973 (0.573)	88604	250	250 (M)
13 Methylene Chloride	84.00	3.213	3.213 (0.619)	111614	250	250
18 1,2-Dichloroethene (total)	96.00			211968	500	510
14 Carbon Disulfide	76.00	3.356	3.356 (0.646)	366380	250	260
15 trans-1,2-Dichloroethene	96.00	3.784	3.784 (0.729)	88197	250	260
17 1,1-Dichloroethane	63.00	4.123	4.123 (0.794)	205546	250	260
19 Vinyl Acetate	43.00	4.221	4.221 (0.813)	222832	250	230
20 2-Butanone	43.00	4.586	4.586 (0.883)	133198	250	310
21 cis-1,2-Dichloroethene	96.00	4.925	4.925 (0.948)	123771	250	250
24 Chloroform	83.00	5.201	5.201 (1.002)	211185	250	250
27 1,1,1-Trichloroethane	97.00	5.995	5.995 (0.869)	145417	250	260
28 1,2-Dichloroethane	62.00	6.075	6.075 (1.170)	191872	250	260
30 Benzene	78.00	6.440	6.440 (0.934)	484006	250	250
31 Carbon Tetrachloride	117.00	6.458	6.458 (0.937)	121153	250	260
34 1,2-Dichloropropane	63.00	7.421	7.421 (1.076)	137350	250	250
35 Trichloroethene	130.00	7.456	7.456 (1.081)	116283	250	260
37 Bromodichloromethane	83.00	7.644	7.644 (1.109)	143478	250	260
39 2-Chloroethylvinylether	63.00	8.250	8.250 (1.196)	65039	250	270
40 4-Methyl-2-Pentanone	43.00	8.481	8.481 (1.230)	213591	250	320
41 cis-1,3-Dichloropropene	75.00	8.508	8.508 (1.234)	175712	250	260
42 trans-1,3-Dichloropropene	75.00	9.141	9.141 (1.326)	152995	250	270
44 Toluene	92.00	9.221	9.221 (0.833)	254526	250	260
45 1,1,2-Trichloroethane	83.00	9.302	9.302 (1.349)	94254	250	260

Data File: /chem/l.i/1950817.b/1229iw3.d Report Date: 24-Aug-1995 11:06

		0773377				AMOUN	TS
C	ompounds	QUANT SIG				CAL-AMT	ON-COL
		MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
-		====	==		=======	======	======
	46 2-Kexanone	43.00	9.685	9.685 (0.875)	179166	250	390
	47 Dibromochloromethane	129.00	9.934	9.934 (1.441)	102598	250	
	49 Tetrachloroethene	164.00	10.273	10.273 (0.928)	93187		270
	52 Chlorobenzene	.112.00	11.120			250	250
M	53 Xylene (Total)	106.00		111110 (1.003)	263472	250	260
	54 Ethylbenzene	106.00	11.414	77 474 (7 004)	471096	750	780
	55 m,p-Xylene(s)	106.00	11.584	11.414 (1.031)	126416	250	260
	56 Bromoform	173.00		11.584 (1.047)	316537	500	520
	57 Styrene		12.002	12.002 (1.085)	72587	250	280
	59 o-Xylene	104.00	12.047	12.047 (1.089)	253974	250	280
		106.00	12.109	12.109 (1.094)	154559	250	260
	60 1,1,2,2-Tetrachloroethane	83.00	12.457	12.457 (1.126)	132799	250	260
*	23 Bromochloromethane	128.00	5.192	5.192 (1.000)	66088	250	200
*	32 1,4-Difluorobenzene	114.00	6.895	6.895 (1.000)	340174		
*	50 Chlorobenzene-d5	117.00	11.067	11.067 (1.000)	276497	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.959	5.959 (1.148)		250	
\$	43 Toluene-d8	98.00	9.123		26214	250	250
\$	61 Bromofluorobenzene	95.00		9.123 (0.824)	360293	250	260
		33.00	12.742	12.742 (1.151)	125668	250	260

# QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/l.i/1950817.b/1229iw3.d

port Date: 18-Aug-1995 09:50

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i b File ID: 1229iw3.d b Smp Id: VSTD050 Analysis Type: VOA

Quant Type: ISTD Operator: ITC

Operator: JC Method File: /chem/l.i/1950817.b/lvoclpw.m Misc Info: L229W2//L228IW3

Calibration Date: 08/17/95

Calibration Time: 1641

Level: LOW

Sample Type: WATER

-		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
23 Bromochloromethane	66088	33044	132176	66088	0.00
32 1,4-Difluorobenzene	340174	170087	680348	340174	0.00
■50 Chlorobenzene-d5	276497	138248	552994	276497	0.00

		-			
COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.19 6.89 11.07	4.69 6.39 10.57	5.69 7.39 11.57	5.19 6.89 11.07	0.00

AREA UPPER LIMIT = +100% of internal standard area. APEA LOWER LIMIT = - 50% of internal standard area.

UPPER LIMIT = + 0.50 minutes of internal standard RT. LOWER LIMIT = - 0.50 minutes of internal standard RT.

AMOUNTE

Data File: /chem/l.i/1950817.b/1229iw4.d

Report Date: 24-Aug-1995 11:06

## SPL Labs

Volatiles by 624/8240

Pata file : /chem/l.i/l950817.b/l229iw4.d

Lab Smp Id: VSTD100

Inj Date : 17-AUG-1995 17:09

Operator : JC Inst ID: 1.i

Smp Info : VSTD100-8240W/1X Misc Info : L229W2//L228IW3

Comment

Method : /chem/l.i/l950817.b/lvoclpw.m

Meth Date : 24-Aug-1995 11:06 jimmy Quant Type: ISTD Cal Date : 17-AUG-1995 17:09 Cal File: 1229iw4.d

Als bottle: 5 Calibration Sample, Level: 4

pil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

	AMOUN	NTS
	CAL-AMT	ON-COL
RESPONSE	( ng)	( ng)
=======	======	======
322365	500	480
245720	500	440
178001	500	490
164578	500	520
223886	500	530 (M)
41566	500	610
171888	500	490 (M)
216460	500	490
431352	1000	1000
725929	500	520
183445	500	530
405044	500	510
454370	500	480
252475	500	570
247907	500	510
415512	500	510
290132	500	510
374162	500	510
965712	500	510
243620	500	530
270577	500	500
230725	500	510
289457	500	530
135688	500	560
433021	500	610
356168	500	530
314302	500	550
500492	500	510
181304	500	510

Data File: /chem/l.i/1950817.b/1229iw4.d Report Date: 24-Aug-1995 11:06

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
•	x = = = = = = = = = = = = = = = = = = =	====	==	=======================================	*****	****	
	46 2-Hexanone	43.00	9.676	9.676 (0.874)	393628	500	740
	47 Dibromochloromethane	129.00	9.935	9.935 (1.441)	214786	500	550
	49 Tetrachloroethene	164.00	10.274	10.274 (0.928)	186614	500	500
	52 Chlorobenzene	112.00	11.120	11.120 (1.005)	519841	500	510
	M 53 Xylene (Total)	106.00			943523	1500	1600
	54 Ethylbenzene	106.00	11.415	11.415 (1.031)	256924	500	520
	55 m,p-Xylene(s)	106.00	11.584	11.584 (1.047)	631921	1000	1000
	56 Bromoform	173.00	12.003	12.003 (1.085)	157248	500	580
	57 Styrene	104.00	12.047	12.047 (1.089)	502352	500	540
	59 o-Xylene	106.00	12.110	12.110 (1.094)	311602	500	520
	60 1,1,2,2-Tetrachloroethane	83.00	12.457	12.457 (1.126)	261309	500	510
	* 23 Bromochloromethane	128.00	5.193	5.193 (1.000)	64852	250	
	* 32 1,4-Difluorobenzene	114.00	6.895	6.895 (1.000)	335374	250	
	* 50 Chlorobenzene-d5	117.00	11.067	11.067 (1.000)	273007	250	
	\$ 26 1,2-Dichloroethane-d4	102.00	5.959	5.959 (1.148)	52397	500	510
	\$ 43 Toluene-d8	98.00	9.124	9.124 (0.824)	715149	-500	510
	\$ 61 Bromofluorobenzene	95.00	12.743	12.743 (1.151)	258787	500	540

QC Flag Legend

 $\ensuremath{\mathrm{M}}$  - Compound response manually integrated.

Data File: /chem/l.i/1950817.b/1229iw4.d

port Date: 18-Aug-1995 09:46

#### SPL Labs

### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i b File ID: 1229iw4.d b Smp Id: VSTD100

Analysis Type: VOA

Quant Type: VOA
Quant Type: ISTD
Gerator: JC
Method File: /chem/l.i/1950817.b/lvoclpw.m
Misc Info: L229W2//L228IW3

Calibration Date: 08/17/95 Calibration Time: 1641

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	66088	33044	132176	64852	-1.87
	340174	170087	680348	335374	-1.41
	276497	138248	552994	273007	-1.26

			RT	LIMIT		· · · · · · · · · · · · · · · · · · ·
COMPOUND		STANDARD	LOWER	OWER UPPER SAMPLE		% DIFF
32	Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-d5	5.19 6.89 11.07	4.69 6.39 10.57	5.69 7.39 11.57	5.19 6.90 11.07	0.01 0.00 0.00

AREA UPPER LIMIT = +100% of internal standard area.

APEA LOWER LIMIT = - 50% of internal standard area.

RE UPPER LIMIT = + 0.50 minutes of internal standard RT.

RE LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/l.i/1950817.b/1229iw5.d

Peport Date: 24-Aug-1995 11:07

#### SPL Labs

Volatiles by 624/8240

hta file : /chem/l.i/l950817.b/l229iw5.d

ab Smp Id: VSTD200

Inj Date : 17-AUG-1995 17:36

Operator : JC Inst ID: 1.i

np Info : VSTD200-8240W/1X nsc Info : L229W2//L228IW3

Comment :

thod : /chem/l.i/1950817.b/lvoclpw.m

the Date: 24-Aug-1995 11:06 jimmy Quant Type: ISTD

ds bottle: 6 Calibration Sample, Level: 5 ll Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
ро	unds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
====		====	==				
1	Chloromethane	50.00	1.760	1.760 (0.339)	623245	1000	960
2	Vinyl Chloride	62.00	1.858	1.858 (0.358)	424502	1000	810
3	Bromomethane	94.00	2.099	2.099 (0.404)	343058	1000	970
4	Chloroethane	64.00	2.179	2.179 (0.420)	320097	1000	1000
7	Trichlorofluoromethane	101.00	2.571	2.571 (0.495)	462534	1000	1100 (M)
8	Acetone	58.00	2.580	2.580 (0.497)	84625	1000	1200
11	1,1-Dichloroethene	96.00	3.008	3.008 (0.579)	349578	1000	1000 (M)
13	Methylene Chloride	84.00	3.213	3.213 (0.619)	431473	1000	990
M 18	1,2-Dichloroethene (total)	96.00			865055	2000	2100
14	Carbon Disulfide	76.00	3.356	3.356 (0.646)	1473058	1000	1000
15	trans-1,2-Dichloroethene	96.00	3.793	3.793 (0.730)	369732	1000	1100
17	1,1-Dichloroethane	63.00	4.131	4.131 (0.796)	796348	1000	1000
19	Vinyl Acetate	43.00	4.229	4.229 (0.815)	913875	1000	980
20	2-Butanone	43.00	4.595	4.595 (0.885)	488892	1000	1100
21	cis-1,2-Dichloroethene	96.00	4.934	4.934 (0.950)	495323	1000	1000
24	Chloroform	83.00	5.210	5.210 (1.003)	827691	1000	1000
27	1,1,1-Trichloroethane	97.00	5.994	5.994 (0.868)	588166	1000	1000
28	1,2-Dichloroethane	62.00	6.083	6.083 (1.172)	745462	1000	1000
30	Benzene	78.00	6.440	6.440 (0.933)	1900331	1000	1000
31	Carbon Tetrachloride	117.00	6.467	6.467 (0.937)	496066	1000	1100
34	1,2-Dichloropropane	63.00	7.429	7.429 (1.076)	542234	1000	1000
35	Trichloroethene	130.00	7.456	7.456 (1.080)	468445	1000	1000
₩37	Bromodichloromethane	83.00	7.652	7.652 (1.108)	585453	1000	1100
39	2-Chloroethylvinylether	63.00	8.249	8.249 (1.195)	288503	1000	1200
40	4-Methyl-2-Pentanone	43.00	8.472	8.472 (1.227)	850562	1000	1200
41	cis-1,3-Dichloropropene	75.00	8.508	8.508 (1.232)	718395	1000	1100
42	trans-1,3-Dichloropropene	75.00	9.141	9.141 (1.324)	645094	1000	1100
144	Toluene	92.00	9.221	9.221 (0.833)	992785	1000	1000
45	1,1,2-Trichloroethane	83.00	9.301	9.301 (1.347)	358281	1000	1000

Data File: /chem/l.i/1950817.b/1229iw5.d Report Date: 24-Aug-1995 11:07

					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	====	==	*****		======	======
46 2-Hexanone	43.00	9.676	9.676 (0.874)	797644	1000	1400
47 Dibromochloromethane	129.00	9.934	9.934 (1.439)	442912	1000	1100
49 Tetrachloroethene	164.00	10.273	10.273 (0.928)	369482	1000	1000
52 Chlorobenzene	112.00	11.120	11.120 (1.004)	1052462	1000	1000
M 53 Xylene (Total)	106.00			1889363	3000	3100
54 Ethylbenzene	106.00	11.414	11.414 (1.031)	517201	1000	1000
55 m,p-Xylene(s)	106.00	11.583	11.583 (1.046)	1261761	2000	2100
56 Bromoform	173.00	12.002	12.002 (1.084)	333502	1000	1200
57 Styrene	104.00	12.047	12.047 (1.088)	1032468	1000	1100
59 o-Xylene	106.00	12.109	12.109 (1.093)	627602	1000	1000
60 1,1,2,2-Tetrachloroethane	83.00	12.457	12.457 (1.125)	537345	1000	1000
* 23 Bromochloromethane	128.00	5.192	5.192 (1.000)	64227	250	
* 32 1,4-Difluorobenzene	114.00	6.904	6.904 (1.000)	330307	250	
* 50 Chlorobenzene-d5	117.00	11.075	11.075 (1.000)	270960	250	
\$ 26 1,2-Dichloroethane-d4	102.00	5.968	5.968 (1.149)	104070	1000	1000
\$ 43 Toluene-d8	98.00	9.123	9.123 (0.824)	1430025	1000	1000
\$ 61 Bromofluorobenzene	95.00	12.742	12.742 (1.151)	529942	1000	1100

QC Flag Legend

 $\ensuremath{\mathsf{M}}$  - Compound response manually integrated.

Data File: /chem/l.i/1950817.b/1229iw5.d Report Date: 18-Aug-1995 09:46

# SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1229iw5.d b Smp Id: VSTD200

Calibration Date: 08/17/95 Calibration Time: 1641

Level: LOW

Sample Type: WATER

Analysis Type: VOA
Quant Type: ISTD
Operator: JC
Mathod File: /chem/l.i/1950817.b/lvoclpw.m
Misc Info: L229W2//L228IW3

COMPOUND  3 Bromochloromethane 2 1,4-Difluorobenzene 50 Chlorobenzene-d5	STANDARD ======= 66088 340174 276497	AREA LOWER ======= 33044 170087 138248		% DIFF ====== -2.82 -2.90 -2.00	

OMPOUND   STANDARD   LOWER   UPPER   SAMPLE   % DIFF   %							
	23 Bromochloromethane 2 1,4-Difluorobenzene	5.19 6.89	LOWER ====================================	UPPER ======= 5.69 7.39	5.19 6.90	0.00	

REA UPPER LIMIT = +100% of internal standard area.
REA LOWER LIMIT = -50% of internal standard area.

TUPPER LIMIT = + 0.50 minutes of internal standard RT. COWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/l.i/1950818.b/1230cw1.d

port Date: 28-Aug-1995 10:14

# SPL Houston Labs

# CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 1.i Lab File ID: 1230cw1.d Ahalysis Type: WATER Lab Sample ID: VSTD050 Injection Date: 18-AUG-1995 09:12
Init. Calibration Date(s): 08/17/95 08/17/95

Init. Calibration Times: 15:45 17:36
Method File: /chem/l.i/1950818.b/lvoclpw.m

ant Type: ISTD

CON	1POUND		MIN	XAM
	1900ND 	RRF	RF250   RRF	%D   %D ==== ====
1	. Chloromethane	2.540	2.606   0.010	2.6 40.
2	! Vinyl Chloride	2.040	2.226 0.100	9.1 25.
3	Bromomethane	1.381	1.373 0.100	0.6 25.
4	Chloroethane	1.230	1.273 0.010	3.5 40.
7	Trichlorofluoromethane	1.655	1.915 0.010	15.7  40.
8	Acetone	0.275	0.317 0.010	15.0 100
11	. 1,1-Dichloroethene	1.347	1.273   0.100	5.5  25.
13	Methylene Chloride	1.697	1.576 0.010	7.1 40
18	1,2-Dichloroethene (total)	1.608	1.499 0.010	6.8 40
14	Carbon Disulfide	5.443	5.441 0.010	0.0 40.
15	trans-1,2-Dichloroethene	1.346	1.228   0.010	8.7 40.
17	1,1-Dichloroethane	3.064	2.943 0.200	3.9 25.
19	Vinyl Acetate	3.617	4.347   0.010	20.2 100
20	2-Butanone	1.745	2.129 0.010	22.0 100.
21	cis-1,2-Dichloroethene	1.870	1.770 0.010	5.4 25.
24	Chloroform	3.171	3.072 0.200	3.1 25.
27	1,1,1-Trichloroethane	0.425	0.431 0.100	1.4 25.
28	1,2-Dichloroethane	2.832	2.708   0.100	4.3 25.
30	Benzene	1.420	1.429 0.500	0.7 25.
31	Carbon Tetrachloride	0.351	0.378 0.100	7.7 25.
34	1,2-Dichloropropane	0.402	0.401 0.010	0.4 25.
35	Trichloroethene	0.340	0.333 0.300	2.0  25.
37	Bromodichloromethane	0.415	0.443 0.200	6.8  25.
39	2-Chloroethylvinylether	0.189	0.206 0.010	8.8 100.
40	4-Methyl-2-Pentanone	0.549	0.668 0.010	21.6 100.
41	cis-1,3-Dichloropropene	0.509	0.544 0.100	6.8 25.
42	trans-1,3-Dichloropropene	0.439	0.473   0.100	7.7 25.
44	Toluene	0.900	0.923 0.400	2.5 25.
45	1,1,2-Trichloroethane	0.266	0.277   0.100	4.1 25.
46	2-Hexanone	0.527	0.726 0.010	37.8   100.
47	Dibromochloromethane	0.3001	0.332 0.100	10.6 25.
49	Tetrachloroethene	0.340	0.349 0.200	2.5 25.
52	Chlorobenzene	0.939	0.971 0.500	3.4  25.
53	Xylene (Total)	0.558	0.583 0.300	4.6  25.
54	Ethylbenzene	0.4581	0.469[0.100]	2.3 25.
55	m,p-Xylene(s)	0.560;	0.583 0.300	4.0  25.
56	Bromoform	0.261	0.321 0.100	22.8  40.
57	Styrene	0.873	0.936[0.300]	7.2 25.
59	o-Xylene	0.553	0.585 0.300	5.7  25.
	1,1,2,2-Tetrachloroethane	0.472	0.547 0.300	16.0  25.

Data File: /chem/l.i/1950818.b/1230cw1.d

Report Date: 28-Aug-1995 10:14

## SPL Houston Labs

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 1.i Lab File ID: 1230cw1.d

Analysis Type: WATER

Lab Sample ID: VSTD050

Quant Type: ISTD

Injection Date: 18-AUG-1995 09:12

Init. Calibration Date(s): 08/17/95 08/17/95 Init. Calibration Times: 15:45

Page 2

Method File: /chem/l.i/1950818.b/lvoclpw.m

1		l	1	MIN		MAX
l	COMPOUND	RRF	RF250	RRF	%D	%D
=:			.	====	=====	====
\$	26 1,2-Dichloroethane-d4	0.396	0.373	0.010	5.8	40.0
\$	43 Toluene-d8	1.289	1.333	0.010	3.4	40.0
\$	61 Bromofluorobenzene	0.453	0.473	0.010	4.9	25.0
		f		.	l	l

Data File: /chem/l.i/1950818.b/l230cw1.d

Report Date: 21-Aug-1995 09:51

#### SPL Labs

Volatiles by 624/8240

Inst ID: 1.i

ata file : /chem/l.i/l950818.b/l230cwl.d

ab Smp Id: VSTD050

arget Version: 3.10

Inj Date : 18-AUG-1995 09:12

perator : JC

mp Info : VSTD050-8240W/1X

Misc Info : L230W1//L230CW1

Comment

lethod : /chem/l.i/1950818.b/lvoclpw.m

Meth Date: 21-Aug-1995 09:51 jimmy

Cal Date : 18-AUG-1995 09:12

Quant Type: ISTD Cal File: 1230cw1.d

ls bottle: 2 Continuing Calibration Sample il Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
<del>Co</del> mpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	====	==	=========	=======		======
1 Chloromethane	50.00	1.767	1.767 (0.340)	184024	250	260
2 Vinyl Chloride	62.00	1.865	1.865 (0.359)	157186	250	270
3 Bromomethane	94.00	2.096	2.096 (0.404)	96951	250	250
4 Chloroethane	64.00	2.194	2.194 (0.423)	89886	250	260
7 Trichlorofluoromethane	101.00	2.595	2.595 (0.500)	135238	250	290 (M)
8 Acetone	58.00	2.587	2.587 (0.498)	22367	250	290
11 1,1-Dichloroethene	96.00	3.059	3.059 (0.589)	89855	250	240 (M)
13 Methylene Chloride	84.00	3.219	3.219 (0.620)	111310	250	230
18 1,2-Dichloroethene (total)	96.00			211732	500	470
14 Carbon Disulfide	76.00	3.380	3.380 (0.651)	384208	250	250
15 trans-1,2-Dichloroethene	96.00	3.799	3.799 (0.732)	86723	250	230
17 1,1-Dichloroethane	63.00	4.129	4.129 (0.796)	207820	250	240
19 Viny! Acetate	43.00	4.227	4.227 (0.814)	306948	250	300
20 2-Butanone	43.00	4.592	4.592 (0.885)	150308	250	300
21 cis-1,2-Dichloroethene	96.00	4.931	4.931 (0.950)	125009	250	240
24 Chloroform	83.00	5.207	5.207 (1.003)	216915	250	240
27 1,1,1-Trichloroethane	97.00	5.992	5.992 (0.868)	148000	250	250
28 1,2-Dichloroethane	62.00	6.081	6.081 (1.172)	191250	250	240
30 Benzene	78.00	6.437	6.437 (0.933)	490518	250	250
31 Carbon Tetrachloride	117.00	6.464	6.464 (0.937)	129615	250	270
34 1,2-Dichloropropane	63.00	7.427	7.427 (1.076)	137479	250	250
35 Trichloroethene	130.00	7.454	7.454 (1.080)	114283	250	240
37 Bromodichloromethane	83.00	7.650	7.650 (1.109)	152179	250	270
39 2-Chloroethylvinylether	63.00	8.247	8.247 (1.195)	70647	250	270
40 4-Methyl-2-Pentanone	43.00	8.479	8.479 (1.229)	229096	250	300
41 cis-1,3-Dichloropropene	75.00	8.505	8.505 (1.232)	186691	250	270
42 trans-1,3-Dichloropropene	75.00	9.138	9.138 (1.324)	162363	250	270
44 Toluene	92.00	9.219	9.219 (0.833)	251287	250	260
45 1,1,2-Trichloroethane	83.00	9.299	9.299 (1.347)	95208	250	260
			•		250	200

Data File: /chem/l.i/1950818.b/l230cw1.d Report Date: 21-Aug-1995 09:51

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
C	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	(ng)	( ng)
=:		====	==	=======================================	=======	======	======
	46 2-Hexanone	43.00	9.682	9.682 (0.875)	197707	250	340
	47 Dibromochloromethane	129.00	9.932	9.932 (1.439)	113994	250	280
	49 Tetrachloroethene	164.00	10.270	10.270 (0.928)	94981	250	260
	52 Chlorobenzene	112.00	11.117	11.117 (1.005)	264243	250	260
M	53 Xylene (Total)	106.00			476298	750	780
	54 Ethylbenzene	106.00	11.420	11.420 (1.032)	127579	250	260
	55 m,p-Xylene(s)	106.00	11.581	11.581 (1.047)	317167	500	520
	56 Bromoform	173.00	12.000	12.000 (1.085)	87341	250	310
	57 Styrene	104.00	12.044	12.044 (1.089)	254789	250	270
	59 o-Xylene	106.00	12.107	12.107 (1.094)	159131	250	260
	60 1,1,2,2-Tetrachloroethane	83.00	12.454	12.454 (1.126)	148906	250	290
*	23 Bromochloromethane	128.00	5.189	5.189 (1.000)	70612	250	
*	32 1,4-Difluorobenzene	114.00	6.901	6.901 (1.000)	343192	250	
*	50 Chlorobenzene-d5	117.00	11.064	11.064 (1.000)	272188	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.965	5.965 (1.149)	26354	250	240
ş	43 Toluene-d8	98.00	9.120	9.120 (0.824)	362712	250	260
\$	61 Bromofluorobenzene	95.00	12.740	12.740 (1.151)	128714	250	260

QC Flag Legend

 $\ensuremath{\mathsf{M}}$  - Compound response manually integrated.

Data File: /chem/l.i/1950818.b/l230cw1.d

Report Date: 18-Aug-1995 09:49

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

instrument ID: l.i ab File ID: 1230cw1.d Lab Smp Id: VSTD050

Level: LOW

Analysis Type: VOA

Sample Type: WATER

Calibration Date: 08/18/95 Calibration Time: 0912

uant Type: ISTD perator: JC

Method File: /chem/l.i/1950818.b/lvoclpw.m

Misc Info: L230W1//L230CW1

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
7 23 Bromochloromethane	70612	35306	141224	70612	0.001
32 1,4-Difluorobenzene	343192	171596	686384	343192	0.00
50 Chlorobenzene-d5	272188	136094	544376	272188	0.00

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene	5.19	4.69	5.69 7.40	5.19	0.00
50 Chlorobenzene-d5	11.06	10.56	11.56	11.06	0.00

AREA UPPER LIMIT = +100% of internal standard area.
REA LOWER LIMIT = - 50% of internal standard area. T UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/l.i/1950821.b/l233cw1.d

Report Date: 21-Aug-1995 10:11

## SPL Labs

# CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 1.i
Lab File ID: 1233cw1.d
Lab Sample ID: VSTD050

Injection Date: 21-AUG-1995 09:36

Init. Calibration Date(s): 08/17/95 08/17/95
Init. Calibration Times: 15:45 17:36
Method File: /chem/l.i/1950821.b/lvoclpw.m

Quant Type: ISTD

	~~		·		MIN	i	MAX
	COMPOUND		RRF	RF250	RRF	%D	%D
==			=== ===================================	=========	=====	=====	====
		promethane	2.540	2.419	0.010	4.7	40.
	-	d Chloride	2.040	2.204	0.100	8.0	25.
		omethane	1.381	1.359	0.100	1.6	25.
		roethane	1.230	1.225	0.010	0.4	40.
		hlorofluoromethane	1.655	1.982	0.010	19.7	40.
	8 Acet		0.275	0.250	0.010	9.3	100.
		Dichloroethene	1.347	1.301	0.100	3.4	25.
		ylene Chloride	1.697	1.635	0.010	3.6	40.
٧Ī		Dichloroethene (total)	1.608	1.502	0.010	6.6	40.
		on Disulfide	5.443	5.419	0.010	0.4	40.
		s-1,2-Dichloroethene	1.346	1.274	0.010	5.3	40.
		Dichloroethane	3.064	2.929	0.200	4.4	25.
	=	l Acetate	3.617	4.019	0.010	11.1	100.
	20 2-Bu		1.745	1.439	0.010	17.5	100.
		1,2-Dichloroethene	1.870	1.729	0.010	7.6	25.
	24 Chlo		3.171	3.031	0.200	4.4	25.
		1-Trichloroethane	0.425	0.441	0.100	3.8	25.
	•	Dichloroethane	2.832	2.627	0.100	7.2	25.
	30 Benze		1.420	1.386	0.500	2.4	25.
		on Tetrachloride	0.351	0.395	0.100	12.5	25.
		Dichloropropane	0.402	0.397	0.010	1.3	25.
		nloroethene	0.340	0.330	0.300	2.8	25.
		odichloromethane	0.415	0.446	0.200	7.3	25.
		loroethylvinylether	0.189	0.189	0.010	0.0	100.
		thyl-2-Pentanone	0.549	0.533	0.010	2.9	100.
		.,3-Dichloropropene	0.509	0.527	0.100	3.4	25.
	42 trans	3-1,3-Dichloropropene	0.439	0.459	0.100	4.4	25.
	44 Tolue		0.900	0.894	0.400	0.7	25.
	45 1,1,2	-Trichloroethane	0.266	0.268	0.100	0.6	
	46 2-Hex		0.527	0.568	0.010	7.8	100.6
		mochloromethane	0.300	0.344	0.100	14.4	25.
		chloroethene	0.340	0.345	0.200j	1.2	25.0
		obenzene	0.939	0.939	0.500	0.0	25.6
		e (Total)	0.558	0.565 0	).300	1.3	25.0
	54 Ethyl		0.458	0.448 0	.100	2.2	
	X-q,m 25		0.560	0.565 0	300	0.8	
	56 Bromo		0.261	0.332 0	.100	27.0	
	57 Styre		0.873	0.894 0	.300[	2.4	
	59 o-Xyl		0.553	0.566 0	.300	2.3	
	60 1,1,2	.2-Tetrachloroethane	0.472	0.51410	.3001	9.1	

Data File: /chem/l.i/1950821.b/l233cw1.d Page 2

Report Date: 21-Aug-1995 10:11

|\$ 61 Bromofluorobenzene

## SPL Labs

## CONTINUING CALIBRATION COMPOUNDS

0.451

Instrument ID: 1.i Lab File ID: 1233cw1.d Injection Date: 21-AUG-1995 09:36

Analysis Type: WATER

Init. Calibration Date(s): 08/17/95 08/17/95
Init. Calibration Times: 15:45 17:36 Method File: /chem/l.i/1950821.b/lvoclpw.m

0.450|0.010| 0.1| 25.0|

Lab Sample ID: VSTD050 Quant Type: ISTD

_			7.7514		
		I	1	MIN	MAX
	COMPOUND	RRF	RF250	RRF   %D	%D
==		-			=====
\$	26 1,2-Dichloroethane-d4	0.396	0.373	0.010  5	.8  40.0
\$	43 Toluene-d8	1.289	1.323	[0.010] 2	6 40.0

Data File: /chem/l.i/1950821.b/1233cw1.d

port Date: 21-Aug-1995 10:11

#### SPL Labs

Volatiles by 624/8240

ta file : /chem/l.i/l950821.b/l233cw1.d

ab Smp Id: VSTD050

inj Date : 21-AUG-1995 09:36

erator : JC Inst ID: 1.i

up Info : VSTD050-8240W/1X Misc Info : L233W1//L233CW1

emment

thod : /chem/l.i/1950821.b/lvoclpw.m

Meth Date : 21-Aug-1995 10:11 jimmy Quant Type: ISTD <u>Cal</u> Date : 21-AUG-1995 09:36 Cal File: 1233cw1.d

s bottle: 2 Continuing Calibration Sample

**#**l Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

rget Version: 3.10

1 Chloro 2 Vinyl 3 Bromom 4 Chloro 7 Trichl 8 Aceton 11 1,1-Di 13 Methyl M 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1-	Chloride methane methane morofluoromethane me	QUANT SIG  MASS  ====  50.00  62.00  94.00  64.00  101.00  58.00  96.00  84.00	RT == 1.704 1.802 2.034 2.114 2.444 2.498 2.881	EXP RT REL RT  1.704 (0.337) 1.802 (0.356) 2.034 (0.402) 2.114 (0.417) 2.444 (0.483) 2.498 (0.493) 2.881 (0.569)	RESPONSE 161053 146687 90439 81559 131910 16630	CAL-AMT ( ng) ===== 250 250 250 250 250 250	ON-COL ( ng) ====== 240 270 240 250 300 (M)
1 Chloro 2 Vinyl 3 Bromom 4 Chloro 7 Trichl 8 Aceton 11 1,1-Di 13 Methyl 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	methane Chloride methane methane morofluoromethane me chloroethene mene Chloride chloroethene (total)	50.00 62.00 94.00 64.00 101.00 58.00 96.00	1.704 1.802 2.034 2.114 2.444 2.498 2.881	1.704 (0.337) 1.802 (0.356) 2.034 (0.402) 2.114 (0.417) 2.444 (0.483) 2.498 (0.493)	161053 146687 90439 81559 131910	250 250 250 250 250 250	240 270 240 250
1 Chloro 2 Vinyl 3 Bromom 4 Chloro 7 Trichl 8 Aceton 11 1,1-Di 13 Methyl 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	methane Chloride methane methane morofluoromethane me chloroethene mene Chloride chloroethene (total)	50.00 62.00 94.00 64.00 101.00 58.00 96.00	1.704 1.802 2.034 2.114 2.444 2.498 2.881	1.704 (0.337) 1.802 (0.356) 2.034 (0.402) 2.114 (0.417) 2.444 (0.483) 2.498 (0.493)	161053 146687 90439 81559 131910	250 250 250 250 250	240 270 240 250
2 Vinyl 3 Bromom 4 Chloro 7 Trichl 8 Aceton 11 1,1-Di 13 Methyl 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	Chloride methane methane morofluoromethane me	62.00 94.00 64.00 101.00 58.00 96.00	1.802 2.034 2.114 2.444 2.498 2.881	1.802 (0.356) 2.034 (0.402) 2.114 (0.417) 2.444 (0.483) 2.498 (0.493)	146687 90439 81559 131910	250 250 250 250	270 240 250
3 Bromom 4 Chloro 7 Trichl 8 Aceton 11 1,1-Di 13 Methyl 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	ethane orofluoromethane e chloroethene ene Chloride chloroethene (total)	94.00 64.00 101.00 58.00 96.00 84.00	2.034 2.114 2.444 2.498 2.881	2.034 (0.402) 2.114 (0.417) 2.444 (0.483) 2.498 (0.493)	90439 81559 131910	250 250 250	240 250
4 Chloro 7 Trichl 8 Aceton 11 1,1-Di 13 Methyl 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	eethane corofluoromethane de chloroethene ene Chloride chloroethene (total)	64.00 101.00 58.00 96.00 84.00	2.114 2.444 2.498 2.881	2.114 (0.417) 2.444 (0.483) 2.498 (0.493)	81559 131910	250 250	250
7 Trichl 8 Aceton 11 1,1-Di 13 Methyl 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	orofluoromethane  de chloroethene ene Chloride chloroethene (total)	101.00 58.00 96.00 84.00	2.444 2.498 2.881	2.444 (0.483) 2.498 (0.493)	131910	250	
8 Aceton 11 1,1-Di 13 Methyl 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	chloroethene ene Chloride chloroethene (total)	58.00 96.00 84.00	2.498	2.498 (0.493)			300 (M)
11 1,1-Di 13 Methyl 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	chloroethene ene Chloride chloroethene (total)	96.00 84.00	2.881	-	16630	250	
13 Methyl M 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	ene Chloride	84.00		2 881 (0 569)		200	230
M 18 1,2-Di 14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	chloroethene (total)			2.001 (0.505)	86595	250	240 (M)
14 Carbon 15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di		24.22	3.113	3.113 (0.615)	108853	250	240
15 trans- 17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di		96.00			199904	500	470
17 1,1-Di 19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	Disulfide	76.00	3.229	3.229 (0.637)	360711	250	250
19 Vinyl 20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	1,2-Dichloroethene	96.00	3.674	3.674 (0.725)	84833	250	240
20 2-Buta 21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	chloroethane	63.00	4.004	4.004 (0.791)	194997	250	240
21 cis-1, 24 Chloro 27 1,1,1- 28 1,2-Di	Acetate	43.00	4.102	4.102 (0.810)	267540	250	280
24 Chloro 27 1,1,1- 28 1,2-Di	none	43.00	4.468	4.468 (0.882)	95807	250	210
27 1,1,1- 28 1,2-Di	2-Dichloroethene	96.00	4.806	4.806 (0.949)	115071	250	230
28 1,2-Di	form	83.00	5.083	5.083 (1.004)	201771	250	240
	Trichloroethane	97.00	5.876	5.876 (0.866)	142532	250	260
30 Benzen	chloroethane	62.00	5.956	5.956 (1.176)	174853	250	230
	e	78.00	6.322	6.322 (0.932)	447404	250	240
31 Carbon	Tetrachloride	117.00	6.340	6.340 (0.934)	127446	250	280
34 1,2-Di	chloropropane	63.00	7.311	7.311 (1.077)	128138	250	250
35 Trichl	oroethene	130.00	7.338	7.338 (1.081)	106645	250	240
37 Bromod	lichloromethane	83.00	7.534	7.534 (1.110)	143900	250	270
39 2-Chlo	roethylvinylether	63.00	8.140	8.140 (1.200)	61091	250	250
40 4-Meth	yl-2-Pentanone	43.00	8.372	8.372 (1.234)	172219	250	240
41 cis-1,	3-Dichloropropene	75.00	8.399	8.399 (1.238)	170042	250	260
42 trans-	1,3-Dichloropropene	75.00	9.032	9.032 (1.331)	148137	250	260
44 Toluen		92.00	9 112	9 112 (0.831)	231628	250	250
45 1,1,2-	ie	83.00	9.201	9.201 (1.356)	86561	250	250

Data File: /chem/l.i/1950821.b/l233cw1.d Report Date: 21-Aug-1995 10:11

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
C	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
=		====	==			======	======
	46 2-Hexanone	43.00	9.575	9.575 (0.873)	147200	250	270
	47 Dibromochloromethane	129.00	9.825	9.825 (1.448)	110988	250	290
	49 Tetrachloroethene	164.00	10.173	10.173 (0.928)	89219	250	250
	52 Chlorobenzene	112.00	11.011	11.011 (1.004)	243251	250	250
М	53 Xylene (Total)	106.00			439071	750	760
	54 Ethylbenzene	106.00	11.314	11.314 (1.032)	116065	250	240
	55 m,p-Xylene(s)	106.00	11.483	11.483 (1.047)	292510	500	500
	56 Bromoform	173.00	11.893	11.893 (1.085)	85900	250	320
	57 Styrene	104.00	11.947	11.947 (1.089)	231625	250	260
	59 o-Xylene	106.00	12.009	12.009 (1.095)	146561	250	260
	60 1,1,2,2-Tetrachloroethane	83.00	12.357	12.357 (1.127)	133242	250	270
*	23 Bromochloromethane	128.00	5.065	5.065 (1.000)	66567	250	
*	32 1,4-Difluorobenzene	114.00	6.785	6.785 (1.000)	322888	250	
*	50 Chlorobenzene-d5	117.00	10.966	10.966 (1.000)	258976	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.840	5.840 (1,153)	24846	250	240
\$	43 Toluene-d8	98.00	9.014	9.014 (0.822)	342698	250	260
\$	61 Bromofluorobenzene	95.00	12.642	12.642 (1.153)	116543	250	250

# QC Flag Legend

 $\ensuremath{\mathsf{M}}$  - Compound response manually integrated.

Pata File: /chem/l.i/1950821.b/l233cw1.d R port Date: 21-Aug-1995 10:11

## SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

strument ID: l.i ab File ID: 1233cw1.d ab Smp Id: VSTD050 malysis Type: VOA

ant Type: ISTD erator: JC

nethod File: /chem/l.i/l950821.b/lvoclpw.m

Misc Info: L233W1//L233CW1

Calibration Date: 08/21/95 Calibration Time: 0936

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	66567	33284	133134	66567	0.00
32 1,4-Difluorobenzene	322888	161444	645776	322888	
50 Chlorobenzene-d5	258976	129488	517952	258976	

1-					
		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
3 Bromochloromethane	5.06	4.56	5.56	5.06	0.00
32 1,4-Difluorobenzene	6.79	6.29	7.29	6.79	0.00
50 Chlorobenzene-d5	10.97	10.47	11.47	10.97	0.00
	·			<del></del>	l

A UPPER LIMIT = +100% of internal standard area.

A LOWER LIMIT = - 50% of internal standard area.

UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

# \*\* SPL BATCH QUALITY CONTROL REPORT \*\*

PAGE

Modified 8015 - Gasoline

Matrix:

Aqueous

Units:

mg/L

Batch Id: HP\_U950827213800

# LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons	ND	1.0	0.90	90.0	56 - 139

#### MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results	Spike Added	Matrix	Spike	Matrix Duplie	Spike	MS/MSD Relative %	_	Limits(***) (Advisory)
	<2>	<3>	Result	Recovery <4>	Result	Recovery <5>	Difference	RPD Max.	Recovery Range
POTROLEUM HYDROCARBONS	ND	0.9	1.3	144	1.3	144	0	18	40 - 158

Analyst: SB

Sequence Date: 08/27/95

SPL ID of sample spiked: 9508A03-01A

Sample File ID: UU\_\_749.TX0

Method Blank File ID:

Blank Spike File ID: UU\_\_740.TX0

Matrix Spike File ID: UU\_\_757.TX0

Matrix Spike Duplicate File ID: UU\_\_758.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [( <1> - <2> ) / <3> ] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>)] x 0.5] x 100

(\*\*) = Source: SPL Historical data

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH (SPL ID):

9508A03-01A 9508A03-05A 9508719-02B

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# \*\* SPL BATCH QUALITY CONTROL REPORT \*\*

Modified 8015 - Gasoline

Matrix:

Aqueous

Units: mg/L

Batch Id: HP\_U950825195300

PAGE

#### LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons	ND	1.0	0.86	86.0	56 - 139

#### MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results	Spike Added	Matrix	Matrix Spike		Matrix Spike Duplicate		_	Limits(***) (Advisory)
	<2>	<3>	Result	Recovery <4>	Result	Recovery <5>	Difference	RPD Max.	Recovery Range
PETROLEUM HYDROCARBONS	ND	0.9	0.81	90.0	0.86	95.6	6.03	18	40 - 158

Analyst: RR

Sequence Date: 08/25/95

SPL ID of sample spiked: 9508768-01A

Sample File ID: UU\_689.TX0

Method Blank File ID:

Blank Spike File ID: UU\_\_668.TX0

Matrix Spike File ID: UU\_\_700.TX0

Matrix Spike Duplicate File ID: UU\_\_701.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

LCS \* Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5> ) x 0.5] x 100

(\*\*) = Source: SPL Historical data

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH (SPL ID):

9508719-01B 9508719-03B 9508720-01B 9508720-02B 9508768-01A 9508768-02A 9508769-01A 9508769-02A

# \*\* SPL BATCH QUALITY CONTROL REPORT \*\* Wisconsin DNR Modified DRO

PAGE

Matrix:

Aqueous

Units:

mg/L

Batch Id: HPTT950828070610

# LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Diesel Range Organics	ND	5.0	4.56	91.2	50 - 150

Analyst: SEG

Sequence Date: 08/27/95

SPL ID of sample spiked: 950823CXLCS

Sample File ID:

Method Blank File ID:

Blank Spike File ID: T\_\_654.TX0

Matrix Spike File ID:

Matrix Spike Duplicate File ID: T\_\_654.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [( <1> - <2> ) / <3> ] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>)] x 0.5] x 100

(\*\*) = Source: SPL-Temporary Limits

(\*\*\*) = Source: SPL-Temporary Limits

SAMPLES IN BATCH (SPL ID):

9508719-01C 9508719-02C 9508719-03C 9508720-01D

9508720-02D

\*\* SPL BATCH QUALITY CONTROL REPORT \*\*

The gold of the control of the contr

Wisconsin DNR Modified DRO

Matrix: Units: Aqueous

mg/L

Batch Id:

HPTT950828070610

PAGE

#### BLANK SPIKES

SPIKE COMPOUNDS	Sample Results	Spike Added	Matrix	Spike	Matrix Spike Duplicate		MS/MSD Relative %	QC Limits(**) (Advisory)	
	<2>	<3>	Result <1>	Recovery	Result	Recovery <5>	Difference	RPD Max.	Recovery Range
DIESEL RANGE ORGANICS	ND	5.0	4.35	86.2	4.43	87.8	1.84	43	20 - 177

Analyst: SEG

Sequence Date: 08/25/95

Method Blank File ID: Sample File ID:

Blank Spike File ID: TT 901.TX0

Matrix Spike File ID:

Matrix Spike Duplicate File ID:

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

\* Recovery = [(<1> - <2>) / <3>] x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>)] x 0.5] x 100

(\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH (SPL ID):

9508719-01C 9508719-02C 9508719-03C 9508720-01D 9508720-02D

# HOUSTON ENVIRONMENTAL

ICP SPECTROSCOPY

# QUALITY ASSURANCE AND CONTROL REPORT

HOUSTON LABORATORY 8880 IN TERCHANGE OF IVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

		8/25/9		Time: //: 3	<i>SO</i>	Analyst:			Units:	
	<i>-,</i>	-Jarrell Ash		File #: 185			200.7 🗹 6		Matrix:	
Ę	Perkin l	Elmer Plasn	na 40	Digest: <u>P3</u>	010	_	Water □ S			Water
DI C	140 - T		TAY A SALV	1 11 21	1	<u> </u>	Other 🔲 C	<sup>111</sup>		Leachate
PL Sa	mple #'s I	n Batch:	9508719	1-10-30						
			9508120	0-1920						
					<u> </u>	accept the same and a same and a same a			J	
PL QA	\/QC Sam	iple ID: #1	1 <u>95089</u> 3	20-2C	#2		#	3	,	<u>-</u>
	Blank and	d Check Sta	ndard	QA/QC		Matr	ix Spike and	Spike Dup	licate Data	
	Method	LCS	LCS Rec.	Sample	Spike	Spike	Spk. Dup.	Spike	Spk. Dup.	MS-MSD
Elem.	Blank	Theoret.	( <u>+</u> 20%)	Conc.	Added	Conc.	Conc.	% Rec.	% Rec.	% RPD
Pb	NΔ	2.00	95.8	NΔ	1.00	0.944	0.955	94.4	95.5	
٠.	1									
								/		-
Flags	🔲 Spike		of QA Limits	•	Superviso	or Approva	1		Date 8	-25-91
		ase Narrauv n Soil LCS !			OA/OC	Approval (	willung	De Vicen	idDate 8	25/95
	Analyst_			LAPSIA.	Idelis Wi	lliams, QC	Officer			1
	7	1	~ 1 / C	0	Ton	,			,	

Software Version: 3.2 <16C20>

Sample Name : STD\_0.9 Sample Number: TC ;W;1

: 08/25/95 20:15 Time : MODWG;1;PQL Study

Operator : RR

Channel: B A/D mV Range: 1000

Instrument : HP\_U AutoSampler : NONE Rack, Vial : 0/0

Interface Serial # : 4153271317 Data Acquisition Time: 08/25/95 19:53

Delay Time : 0.00 min. -End Time : 21.20 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_\_666.raw Result File : l:\data\tchrom\btex\hp\_u\UU\_\_666.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc Sample File : L:\DATA\TCHROM\BTEX\METHODS\UWG08215.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXU.seq

Inj. Volume : 2 ul Sample Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

# PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	3.391	601661.00	54810.69 BV	9.9999e5	1.8951	1.1302		0.6017	1.1302
2	3.694	177202.78	22951.18 VV	1.0000e6	1.8951	1.1302		0.1772	1.1302
3	3.871	380483.31	49209.52 VV	4.4348e5	1.8951	1.1302	Benzene	0.8580	1.1302
4	4.247	389684.13	51149.50 VV	3924.4497	1.8951	1.1302	1.4-DIFLUOROBENZENE	99.2965	1.1302
5	4.778	960325.94	99525.46 VV		1.8951	1.1302	TFT	0.0000	1.1302
6	6.873	1083723.75	111015.28 VB	1.2291e6	1.8951	1.1302	Toluene	0.8817	1.1302
7	10.844	303461.88	28812.77 BV	3.5887e5	1.8951	1.1302	Ethyl_Benzene	0.8456	1.1302
8	11.115	707600.13	55606.13 VV	8.2153e5	1.8951		m - Xylene	0.8613	1.1302
9	12.703	672985.50	46016.29 VV	7.8758e5	1.8951	1.1302	o-Xylene	0.8545	1.1302
10	13.823	7001.59	694.08 VV	1.0000e6	1.8951	1.1302	•	0.0070	1,1302
11	14.132	152443.39	39458.60 VB	1512.9758	1.8951	1.1302	4-BROMOFLUOROBENZENE	100.7573	1.1302
12	14.668	2387.22	1007.68 BV	1.0000e6	1.8951	1.1302		0.0024	1.1302
13	14.767	524849.81	188703.86 VB	9.9999e5	1.8951	1.1302		0.5249	1.1302
		5963810.00	748961.00		24.6363	14.6926		205.6680	14.6926

Group Report For :

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	3.871	380483.31	49209.52 BV	4.4348e5	1.8951	0.5966	Benzene	0.8580	0.5966
4	6.873	1083723.75	111015.28 VB	1.2291e6	1.8951		Toluene	0.8817	
5	10.844	303461.88	28812.77 VV	3.5887e5	1.8951	0.5966	Ethyl_Benzene	0.8456	
6	11.115	707600.13	55606.13 VV	8.2153e5	1.8951		m - Xylene	0.8613	
7	12.703	672985.50	46016.29 BV	7.8758e5	1.8951		o-Xylene	0.8545	
		3148254.50	290659 97		9 4755	2.9831	• • • • • • • • • • • • • • • • • • • •		2 0831

Group Report For : SURROGATE

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	4.247 4.778 14.132	389684.13 960325.94 152443.39	51149.50 vv 99525.46 vv 39458.60 vB		1.8951 1.8951 1.8951	0.2847	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	99.2965 0.0000 100.7573	
		1502453.38	190133.56		5.6853	0.8542	***************************************	200.0538	0.8542

END

Chromatogram Sample #: TC ;W;1 Date : 08/25/95 20:15 Page 1 of 1 : BTEXU.ins Time of Injection: 08/25/95 Low Point : -3.91 mV Plot Scale: 200 mV t Time : 0.00 min End Time : 21.20 min High Point : 195.71 mV scale Factor: Plot Offset: -4 mV 3.69 4.25 4.78 6.87 190 -170 120-110 100 <u> 60 -</u> 20-10-BESTAGE JULIUS. 10 12 16 18 20

Software Version: 3.2 <16C20>

Sample Name : LCS\_1.0 : 08/25/95 21:12 Time Sample Number: TL ;W;1 : MODWG;1;PQL Ştudy Operator : RR

Instrument : HP\_U AutoSampler : NONE Rack/Vial : 0/0

Channel: B A/D mV Range : 1000

Interface Serial # : 4153271317 Data Acquisition Time: 08/25/95 20:51 Delay Time : 0.00 min. End Time : 21.20 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_\_668.raw Result File : l:\data\tchrom\btex\hp\_u\UU\_668.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc Sample File : L:\DATA\TCHROM\BTEX\METHODS\UWG08215.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXU.seq

Inj. Volume : 2 ul Sample Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

# PURFID Area Percent Report

0.06

#	Ret (ime (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9	3.390 3.693 3.867 4.244 4.776 6.870 10.843 11.109 12.701 14.132	521939.72 162291.41 323894.75 388958.16 959860.06 975161.00 271621.00 1178411.75 624006.88 149620.33	47515.86 BV 20991.32 VV 42107.00 VV 51348.91 VV 99449.18 VV 99768.65 VB 26277.04 BV 93532.70 VV 42360.11 VV 39463.80 VB	1.0000e6 1.0000e6 4.4326e5 3922.5461 	1.8951 1.8951 1.8951 1.8951 1.8951 1.8951 1.8951 1.8951	1.1432 1.1432 1.1432 1.1432 1.1432	Benzene 1,4-DIFLUOROBENZENE TFT Toluene Ethyl_Benzene m - Xylene o-Xylene 4-BROMOFLUOROBENZENE	0.5219 0.1623 0.7307 99.1596 0.0000 0.7937 0.7572 1.4351 0.7927 98.9394	1.1432 1.1432 1.1432 1.1432 1.1432 1.1432 1.1432 1.1432 1.1432
11 12	14.668 14.766	3178.66 473515.31	1130.61 BV 168410.44 VB	1.0000e6 1.0000e6	1.8951 1.8951	1.1432 1.1432		0.0032 0.4735	1.1432 1.1432
		6032459.50	<i>7</i> 32355.63		22.7412	13.7185		203.7694	13.7185

#### Group Report For :

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 4 5 6 7	3.867 6.870 10.843 11.109 12.701	323894.75 975161.00 271621.00 1178411.75 624006.88	42107.00 BV 99768.65 VB 26277.04 VV 93532.70 VV 42360.11 BV	4.4326e5 1.2285e6 3.5870e5 8.2113e5 7.8720e5	1.8951 1.8951 1.8951 1.8951 1.8951	0.6392 0.6392 0.6392	Benzene Toluene Ethyl_Benzene m - Xylene o-Xylene	0.7307 0.7937 0.7572 1.4351 0.7927	0.6392 0.6392 0.6392 0.6392 0.6392
		3373095.50	304045.50		9.4755	3.1962		4.5095	3.1962

Group Report For : SURROGATE

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	4.244 4.776 14.132	388958.16 959860.06 149620.33	51348.91 vv 99449.18 vv 39463.80 vB		1.8951 1.8951 1.8951	0.2840	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	99.1596 0.0000 98.9394	0.2840 0.2840 0.2840
		1498438.63	190261.89		5.6853	0.8519		198.0990	0.8519

END

Sample Name : LCS\_1.0 Sample #: TL ;W;1 Page 1 of 1 : l:\data\tchrom\btex\hp\_u\UU\_668.raw Date: 08/25/95 21:12 FileName hod : BTEXU.ins : BTEXU.ins Time of Injection: 08/25/95 20:51 End Time : 21.20 min Plot Offset: -3 mV Low Point : -2.90 mV High Point : 175.54 mV le Factor: Plot Scale: 178 mV -14.15 -14.67 -12.70-3.89 -4.24 -4.78 6.87 170 160 150-139-120-110-100 60-90 40 30 20-BEOLIGH 12 16 18 20

Software Version: 3.2 <16C2O>

Sample Name : BLANK Time : 08/25/95 23:09 Sample Number: B ;W;1 Study : MODWG;1;PQL

Operator : RR

Instrument : HP\_U
AutoSampler : NONE

Channel: B A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial #: 4153271317 Data Acquisition Time: 08/25/95 22:47

Delay Time : 0.00 min. End Time : 21.20 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_672.raw
Result File : l:\data\tchrom\btex\hp\_u\UU\_672.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\UWGO8215.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXU.seq

Inj. Volume : 2 ul Sample Amount : 1.0000

: 2 ul Area Reject : 100.00 : 1.0000 Dilution Factor : 1.00

#### PURFID Area Percent Report

³eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6	3.397 4.242 4.783 13.931 14.136 14.765	22132.84 372421.63 950743.50 12523.50 142776.34 8646.66	1540.60 8V 49823.65 VV 97011.21 VB 334.26 BB 37289.59 BV 1401.71 VB	3885.2905 1.0000e6 1497.8789	1.8951 1.8951 1.8951 1.8951 1.8951 1.8951	0.2860 0.2860 0.2860 0.2860 0.2860 0.2860	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	0.0221 95.8543 0.0000 0.0125 95.3190 0.0087	0.2860 0.2860
		1509244.50	187401.05		11.3706	1.7161		191,2166	1.7161

Froup Report For :

eak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 4 5 6 7	3.885 6.894 10.870 11.141 12.733	0.00 0.00 0.00 0.00 0.00	0.00 VV 0.00 VV 0.00 VV		1.8951 1.8951 1.8951 1.8951 1.8951	0.0000 0.0000	Benzene Toluene Ethyl_Benzene m - Xylene o-Xylene	0.0000 0.0000 0.0000 0.0000 0.0000	0.0000
		0.00	0.00		9.4755	0.0000		0.0000	0.0000

roup Report For : SURROGATE

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	4.242 4.783 14.136	372421.63 950743.50 142776.34	49823.65 VV 97011.21 VB 37289.59 VV		1.8951 1.8951 1.8951	0.2778	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	95.8543 0.0000 95.3190	0.2778 0.2778 0.2778
		1465941.50	184124.45		5.6853	0.8334		191.1733	0.8334

eport Stored in ASCII File: l:\data\tchrom\btex\hp\_u\UU\_\_672.TX0

Chromatogram Sample Name : BLANK Sample #: B ;W;1 Date : 08/25/95 23:09 Page 1 of 1 FileName : l:\data\tchrom\btex\hp\_u\UU\_\_672.raw nod : BTEXU.ins t Time : 0.00 min le Factor: 1 Time of Injection: 08/25/95 22:47 End Time : 21.20 min Plot Offset: 1 mV Low Point : 0.72 mV High Point : 103.01 mV Plot Scale: 102 mV 100 30 -30 12 10 15 20 13

# UWG08215

	RF
CONC AREA	$\frac{0.18}{102.63} = 0.001754 \qquad \forall xn^{-1} = 0.000071289$
	$\frac{0.36}{192.88} = 0.001867$ $RSD = \frac{0.000071289}{RF} = \frac{0.000071289}{6.0018951} \times 100\%$
	379.17 = 0.001899
	0.90 <del>976.28</del> = 0.001990
	1.80 936.86 = 0.001921
	$\frac{3.60}{1907.73} = 0.00188\%$
	7.20 3721.91 = 0.001935
	9.00 4484.50 = 0.00 Z007
	RF = 0.015161 8 ×1000
	RF = 1.8951

Software Version: 3.2 <16C20>

Sample Name : 0.18 mple Number: TC ;W;1

Time Study : 08/22/95 11:01

erator

: RR

: MODWG;1;PQL

Instrument : HP\_U

Channel: B

A/D mV Range : 1000

<u>Au</u>toSampler : NONE ck/Vial : 0/0

Interface Serial # : 4153271317 Data Acquisition Time: 08/21/95 17:43

Delay Time : 0.00 min. d Time : 21.20 min. npling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_517.raw
Result File : l:\data\tchrom\btex\hp\_u\UU\_517.rst strument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins pcess File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc : L:\DATA\TCHROM\BTEX\METHODS\UWG08215.smp Sequence File : l:\data\tchrom\btex\methods\btexu.seq

. Volume : 2 ul note Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

0.18 = 0.001754

# PURFID Area Percent Report

Peak	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
67	3.398 3.704 3.885 4.264 4.795 6.894 10.870 11.141 12.733 14.144 14.773	146411.19 47122.24 88897.31 367628.06 924688.69 250866.94 66476.88 161693.16 150594.00 145164.00 114258.98	13340.29 BV 5849.65 VV 11469.14 VV 49040.68 VV 95533.35 VV 25210.30 VB 6465.14 BV 12428.71 VB 10306.50 BB 36983.44 BB 39815.50 BB	9.9999e5 4.2702e5 3778.8154 1.1835e6 3.4556e5 7.9104e5 7.5835e5 1456.8301	1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928	0.3678 0.3678 0.3678 0.3678 0.3678 0.3678	Benzene 1,4-DIFLUOROBENZENE TFT Toluene Ethyl_Benzene m - Xylene o-Xylene 4-BROMOFLUOROBENZENE	0.1464 0.0471 0.2082 97.2866 0.0000 0.2120 0.1924 0.2044 0.1986 99.6438 0.1143	0.3678 0.3678 0.3678 0.3678 0.3678 0.3678 0.3678 0.3678
		2463801.50	306442.69		16.4208	4.0458		198.2536	4.0458

#### p Report For :

P##	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
6 7	3.885 6.894 10.870 11.141 12.733	88897.31 250866.94 66476.88 161693.16 150594.00	11429.14 BV 25210.30 VB 6465.14 VV 12428.71 VB 10306.50 BB	4.2702e5 1.1835e6 3.4556e5 7.9104e5 7.5835e5	1.4928 1.4928 1.4928 1.4928 1.4928	0.1073 0.1073 0.1073	Benzene Toluene Ethyl_Benzene m - Xylene o-Xylene	0.2082 0.2120 0.1924 0.2044 0.1986	0.1073 0.1073 0.1073
		718528.25	65879.79		7.4640	0.5363		1.0155	0.5363

# p Report For : SURROGATE

Peak į # -	Ret Time [min]	Area [uV-sec]	Height BL (uV)	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT	RAW AMT. PURFID PPM
8	4.264 4.795 14.144	367628.06 924688.69 145164.00	49040.68 VV 95533.35 VV 36983.44 BB		1.4928 1.4928 1.4928	0.2146	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	97.2866 0.0000 99.6438	0.2146
		1437480.75	181557.47		4.4784	0.6438	• • • • • • • • • • • • • • • • • • • •	196.9303	0.6438

Software Version: 3.2 <16C2O>

Sample Name : 0.36 Imple Number: TC ;W;1 erator : RR

Time

: 08/22/95 11:01

Study

: MODWG;1;PQL

Instrument : HP\_U AutoSampler : NONE

Channel : B

A/D mV Range : 1000

ck/Vial : 0/0

Interface Serial # : 4153271317 Data Acquisition Time: 08/21/95 18:12

Detay fine : 0.00 min. · 21.20 min. mpling date : 1.0000 pts/sec

Result File : l:\data\tchrom\btex\hp\_u\UU\_518.raw trument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins comple File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc
: L:\DATA\TCHROM\BTEX\METHODS\UWG08215.smp Sequence File : l:\data\tchrom\btex\methods\btexu.seq

. Votume : 2 ul note Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00

36 = 100 192.88 0.001867

# PURFID Area Percent Report

Peak	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
6 7 10 11	3.400 3.705 3.888 4.265 4.795 6.893 10.871 11.142 12.735 14.143 14.577	283855.31 90268.38 165359.50 370583.13 923461.75 462159.50 121577.81 299125.19 281520.00 144526.28 1395.09 223527.64	26044.04 BV 11346.60 VV 21239.02 VV 49011.16 VV 95765.34 VV 46994.99 VB 12019.52 BV 23116.75 VB 19233.77 BB 36930.99 BV 484.18 VV 74774.21 VB	1.0000e6 4.2645e5 3773.8015	1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928	0.5027 0.5027 0.5027 0.5027 0.5027 0.5027 0.5027 0.5027 0.5027 0.5027 0.5027	Benzene 1,4-DIFLUOROBENZENE IFT Toluene Ethyl_Benzene m - Xylene o-Xylene 4-BROMOFLUOROBENZENE	0.2839 0.0903 0.3878 98.1989 0.0000 0.3910 0.3523 0.3786 0.3717 99.3378 0.0014 0.2235	0.5027 0.5027 0.5027 0.5027 0.5027 0.5027 0.5027 0.5027 0.5027 0.5027
		336,7359.50	416960.63		47.9136	6.0322	*********	200.0172	6.0322

# up Report For :

Резk #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
5	3.888 6.393 10.871 11.142 12.735	165359.50 462159.50 121577.81 299125.19 281520.00	21239.02 BV 46994.99 VB 12019.52 VV 23116.75 VB 19233.77 BB	4.2645e5 1.1819e6 3.4510e5 7.8999e5 7.5735e5	1.4928 1.4928 1.4928 1.4928 1.4928	0.1985 0.1985 0.1985	Benzene Toluene Ethyl_Benzene m - Xylene o-Xylene	0.3878 0.3910 0.3523 0.3786 0.3717	0.1985 0.1985 0.1985
<del>-</del>		1329742.00	122604.06		7.4640	0.9925	• • • • • • • • • • • • • • • • • • • •		n 0025

#### Report For : SURROGATE

Peak	Ret lime (min)	Area (uV-sec)	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
3	4.265 4.795 14.145	370583.13 923461.75 144526.28	49011.16 vv 95765.34 vv 36930.99 vv		1.4928 1.4928 1.4928	0.2148	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	98.1989 0.0000 99.3378	0.2148
		1438571.13	181707.50		4.4784	0.6443	• • • • • • • • • • • • • • • • • • • •	197,5367	0,6443

Chromatogram Sample #: TC ;W;1
Date : 08/22/95 11:01 Sample Name: 0.36 Page 1 of 1 : l:\data\tchrom\btex\hp\_u\UU\_\_518.raw
: BTEXU.ins FileName Method Time of Injection: 08/21/95 Start Time : 0.00 min End Time : 21.20 min Low Point : 0.78 mV High Point : 101.34 mV Scale Factor: Plot Offset: 1 mV Plot Scale: 101 mV -14.14 =14.68 3.40 -4.27 -4.79 -6.89 100 ... щ) 70 Vm] eshocises **6**Ω 50 ..;: 30 --20 10 BFD-EIIII.

TOLUENE

A-BROLIOTE

A-BROLIOTE 10 12 ia 16 20

Software Version: 3.2 <16020>

Sample Name : 0.72 Tample Number: TC ;W;1 Time : 08/22/95 11:01 Study : MODWG;1;PQL

perator : RR

Instrument : HP\_U autosampter : NONE

Channel: B A/D mV Range: 1000

ack/Viat : 0/0

Interrace Serial # : 4153271317 Data Acquisition Time: 08/21/95 18:41

Detay fime : 0.00 min.
And fime : 21.20 min.
Ampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_519.raw
esult file : l:\data\tchrom\btex\hp\_u\UU\_519.rst
nstrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins
rocess File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc
Sample file : L:\DATA\TCHROM\BTEX\METHODS\UWG08215.smp
Sequence File : l:\data\tchrom\btex\methods\btexu.seq

nj. Volume : 2 ul sample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00 0.72 = 10.001899

PURFID Area Percent Report

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 2 3	3.397 3.703 3.892 4.265 4.794 6.892 10.865 11.136 12.726 13.836 14.140 14.674 14.772	549851.88 174247.06 324759.06 377362.97 933237.38 906929.63 247564.00 587580.00 557577.81 4940.70 147891.02 2495.07 435713.94	50276.02 BV 21897.00 VV 41839.69 VV 48921.24 VV 96853.59 VV 92892.14 VB 23840.50 BV 46023.80 VB 38213.58 BV 538.28 VV 38329.81 VB 892.33 BV 152331.44 VB	9.9999e5 1.0000e6 4.3097e5 3813.7505 	1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928	0.7837 0.7837 0.7837 0.7837 0.7837 0.7837 0.7837 0.7837 0.7837 0.7837 0.7837	Benzene 1,4-DIFLUOROBENZENE TFT Toluene Ethyl_Benzene m - Xylene o-Xylene 4-BROMOFLUOROBENZENE	0.5499 0.1743 0.7536 98.9480 0.0000 0.7593 0.7099 0.7360 0.7285 0.0049 100.5857 0.0025 0.4357	0.7837 0.7837 0.7837 0.7837 0.7837 0.7837 0.7837 0.7837 0.7837 0.7837 0.7837
_		5250150.50	652849.44		19.4064	10.1887		204.3881	10.1887

oup Report for :

Peak #	Ret Time [min]	Area {uV-sec}	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 4 5 6 7	3.892 6.892 10.865 11.136 12.726	324759.06 906929.63 247564.00 587580.00 557577.81	41839.69 BV 92892.14 VB 23840.50 VV 46023.80 VB 38213.58 BV	1.1944e6 3.4875e5 7.9835e5	1.4928 1.4928 1.4928 1.4928 1.4928	0.3918 0.3918 0.3918	Benzene Toluene Ethyl_Benzene m - Xylene o-Xylene	0.7536 0.7593 0.7099 0.7360 0.7285	0.3918 0.3918 0.3918
Ê		2624410.50	242809.70	*******	7.4640	1.9589	•••••••	3.6872	1.9589

Group Report For : SURROGATE

ak #	Ret lime (min)	Area (uV-sec)	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component łame	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8 	4.265 4.794 14.140	377362.97 933237.38 147891.02	48921.24 vv 96853.59 vv 38329.81 vB	:	1.4928 1.4928 1.4928	0.2177	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	98.9480 0.0000 100.5857	0.2177 0.2177 0.2177
_		145,8491.38	184104.64		4.4784	0.6532		199.5337	0.6532

Chromatogram Sample #: TC ;W;1 Date : 08/22/95 11:02 Sample Name: 0.72 Page 1 of 1 FileName : l:\data\tchrom\btex\hp\_u\UU\_\_519.raw : BTEXU.ins Time of Injection: 08/21/95 18:41 Method Start Time : 0.00 min End Time : 21.20 min Low Point : -1.85 mV High Point: 154.24 mV Scale Factor: Plot Offset: -2 mV Plot Scale: 156 mV -12.736.89 • . () 1 4/4 . . . 110 100-Response [m/ **::**:: 70 35 30 20 BROMOFL XYLENE TOLUENE 27. E 10 å 18 16

Software Version: 3 2 <16C20>
Sample Name : 0.9
Sample Number: 7,1
perator : RR

Time Study : 08/22/95 11:02 : MODWG;1;PQL

Instrument : HP\_U

Channel : B

A/D mV Range : 1000

utoSampler : NONE ck/Vial : 0/0

Interface Serial # : 4153271317 Data Acquisition Time: 08/21/95 19:10

Delay fine : 0.00 min. : 21.20 min. d fine moting Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_\_520.raw esult file : l:\data\tchrom\btex\hp\_u\UU\_520.rst strument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins ocess | | | | : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc Sample File : L:\DATA\TCHROM\BTEX\METHODS\UWG08215.smp Sequence File : 1:\data\tchrom\btex\methods\btexu.seq

j. Volume : 2 ut mple Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

0.1 = 0.001890 476.28

PURFID Area Percent Report

Paak #	Ret Time (min)	Area [uV-sec]	Height BL (uV)	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 6 4 6 7 6 9 1 1 1 1 1 1 1	3.399 3.703 3.894 4.266 4.792 6.888 10.859 11.130 12.720 13.831 14.138 14.673 14.770	707783.88 235462.81 393352.50 382498.75 935987.13 1130425.38 315569.59 729959.94 694746.94 5126.02 147463.05 3111.83 547285.19	64937.54 BV 28140.33 VV 52568.40 VV 49192.43 VV 97185.59 VV 115811.13 VB 29718.95 BV 57533.54 VB 47646.56 BV 683.47 VV 38539.02 VB 1199.62 BV 193237.28 VB	1.0000e6 1.0000e6 4.3224e5 3824.9876 	1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928	0.9298 0.9298 0.9298 0.9298 0.9298 0.9298 0.9298	Benzene 1,4-DIFLUOROBENZENE TFT Toluene Ethyl_Benzene m - Xylene o-Xylene 4-BROMOFLUOROBENZENE	0.7078 0.2355 0.9100 100.0000 0.0000 0.9436 0.9022 0.9116 0.9051 100.0000 0.0031	0.9298 0.9298 0.9298 0.9298 0.9298 0.9298 0.9298 0.9298 0.9298 0.9298 0.9298
		622,8773.00	776393.88		19.4064	12.0878		206.0713	12.0878

Report For :

Peak	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4	3.394 6.888 10.859 11.130 12.720	393352.50 1130425.38 315569.59 729959.94 694746.94	52568.40 BV 115811.13 VB 29718.95 VV 57533.54 VB 47646.56 BV	4.3224e5 1.1980e6 3.4978e5 8.0071e5 7.6762e5	1.4928 1.4928 1.4928 1.4928 1.4928	0.4873 0.4873 0.4873	Benzene Toluene Ethyl_Benzene m - Xylene o-Xylene	0.9100 0.9436 0.9022 0.9116 0.9051	0.4873 0.4873 0.4873 0.4873 0.4873
		3264054.50	303278.59		7.4640	2.4363	• • • • • • • • • • • • • • • • • • • •	4.5725	2.4363

Group Report For : SURROGATE

P	k Ret Lime Lmini	Area (uV-sec)	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2	4.266 4.792 14.138	382498.75 935987.13 147463.05	49192.43 VV 3824.9876 97185.59 VV 38539.02 VB 1474.6305	1.4928 1.4928 1.4928	0.2188	1,4-01FLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	100.0000 0.0000 100.0000	0.2188
_		1465948.88	184917.05	4.4784	0.6565		200.0000	0.6565

Ġ

Software Version: 3.2 <16C2O>

Sample Name : 1.8 imple Number: TC ;W;1 Time Study : 08/22/95 11:02 : MODWG;1;PQL

erator

: RR

Instrument : HP\_U AutoSampler : NONE

Channel : B

A/D mV Range : 1000

ck/Vial : 0/0

Interface Serial # : 4153271317 Data Acquisition Time: 08/21/95 19:39

Delay fime : 0.00 min. a fime : 21.20 min. mpting Rate : 1.0000 pts/sec

Raw Data File : L:\data\tchrom\btex\hp\_u\UU\_521.raw Sesuit File : L:\data\tchrom\btex\hp\_u\UU\_521.rst streament File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins new rice : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc Sequence rite : L:\DATA\TCHROM\BTEX\METHODS\UWGO8215.smp

j. volume : 2 ul mole amount : 1.0000

Area Reject

: 100.00

Dilution Factor : 1.00

936.86 0.001921

# PURFID Area Percent Report

Paak	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT	RAW AMT. PURFID PPM
67	3.405 3.709 3.903 4.275 4.779 6.896 10.867 11.139 12.731 13.932 14.140 14.481 14.673 14.771	1369139.50 430621.63 784153.69 390792.34 927011.56 2221016.25 610822.75 1456081.38 1381374.25 20312.00 146990.17 3235.00 5608.31 1086272.75	124911.41 BV 53813.43 VV 103912.28 VV 48883.63 VV 95711.29 VV 229462.48 VB 58811.97 BV 114579.39 VV 94982.66 VE 1495.67 EV 38190.99 VE 669.96 EB 2199.96 BV 386648.56 VB	1.0000e6 4.2809e5 3788.3081 	1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928	1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172	Benzene 1,4-DIFLUOROBENZENE TFT Toluene Ethyl_Benzene m - Xylene o-Xylene 4-BROMOFLUOROBENZENE	1.3691 0.4306 1.8317 103.1575 0.0000 1.8719 1.7632 1.8361 1.8170 0.0203 100.6445 0.0032 0.0056 1.0863	1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172 1.6172
Ě		10833432.00	1.35e6		20.8992	22.6410		215.8370	22.6410

# Group Report For :

P	Ret Time [min]	Area (uV-sec)	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT	RAW AMT. PURFID PPM
1	3.903 6.896 10.867 11.139 12.731	784153.69 2221016.25 610822.75 1456081.38 1381374.25	103912.28 BV 229462.48 VB 58811.97 VV 114579.39 VV 94982.66 BE	4.2809e5 1.1865e6 3.4642e5 7.9303e5 7.6026e5	1.4928 1.4928 1.4928 1.4928 1.4928	0.9634 1 0.9634 E	Benzene foluene Ethyl_Benzene n - Xylene p-Xylene	1.8317 1.8719 1.7632 1.8361 1.8170	0.9634
1		6453448.00	601748.81		7.4640	4.8169		9.1199	4.8169

# Group Report For : SURROGATE

P	Ret fime (min)	Area {uV-sec}	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT	RAW AMT. PURFID PPM
	4.275 4.799 14.140	390792.34 927011.56 146990.17	4883.63 VV 3788.308 95711.29 VV 38190.99 VE 1460.489	1.4928	0.2187	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	103.1575 0.0000 100.6445	0.2187 0.2187 0.2187
	`	1464794.00	182785.89	4.4784	0.6560		203.8019	0.6560

Chromatogram Sample #: TC ;W;1 Date : 08/22/95 11:02 Sample Name: 1.8 Page 1 of 1 FileName : l:\data\tchrom\btex\hp\_u\UU\_\_521.raw : BTEXU.ins Time of Injection: 08/21/95 19:39 Method Start Time : 0.00 min End Time : 21.20 min Low Point : -13.45 mV High Point: 386.21 mV Scale Factor: Plot Offset: -14 mV Plot Scale: 400 mV -4.28 -4.80 6.90 123 ٠...: . : 1.10 260 260 240 Response [my 220 200 180 17:1 إيدزا 120 ---100--80. ...1 60 40 29 Ç ż 12 10 16 13

Software Version: 3.2 <16C2O>

Sample Hame : 3.6 ample-vicaber: TC ;W;1

Time Study : 08/22/95 11:02 : MODWG;1;PQL

perator : RR

Instrument : HP U

µtoSampler : NONE

Channel: 8

A/D mV Range : 1000

ick/Vial

Delay fime : 0.00 min.

Intertace Serial # : 4153271317 Data Acquisition Time: 08/21/95 20:08

ld fime : 21.20 min. mpling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_522.raw
2esult File : l:\data\tchrom\btex\hp\_u\UU\_522.rst Istrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins ocess rile : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc Sample File : L:\DATA\TCHROM\BTEX\METHODS\UWG08215.smp
Sequence File : l:\data\tchrom\btex\methods\btexu.seq 1907.23 0.001898

i. votume : 2 ul Area Reject

: 100.00

mula Amount : 1.0000

Dilution Factor : 1.00

# PURFID Area Percent Report

Seak #	Ret Time [min]	Area (uV-sec)	Height BL (uV)	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 B 9 7 1 1 P 3 7	3.411 3.710 3.909 4.279 4.800 6.901 10.871 11.145 12.736 13.832 14.139 14.479 14.672 14.770	2924704.00 920304.38 1583171.75 428547.94 968626.75 4429270.00 1219444.75 2942189.00 2778537.50 48507.00 157058.73 5579.00 11517.24 2209018.75	267304.53 BV 115896.20 VV 206204.66 VV 51916.47 VV 98308.88 VV 460036.50 VB 117563.29 BV 232615.61 VV 192007.16 VE 3261.64 EV 40259.92 VE 1205.54 EB 4533.25 BV 789488.56 VB	1.0000e6 1.0000e6 4.4731e5 3958.3718 1.2397e6 3.6198e5 8.2863e5 7.9439e5 1.0000e6 1526.0536 1.0000e6 1.0000e6	1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928	3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791	Benzene 1,4-DIFLUOROBENZENE TFT Toluene Ethyl_Benzene m - Xylene o-Xylene 4-BROMOFLUOROBENZENE	2.9247 0.9203 3.5393 108.2637 0.0000 3.5726 3.3688 3.5507 3.4977 0.0485 102.9182 0.0056 0.0115 2.2090	3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791 3.0791
		20625476.00	2.58e6		20.8992	43.1077		234.8306	43.1077

# Group Report For :

k	Ret Time [min]	Area [uV-sec]	Height BL (uV)	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT	RAW AMT. PURFID PPM
1 7	3.909 6.901 10.871 11.145 12.736	1583171.75 4429270.00 1219444.75 2942189.00 2778537.50	206204.66 BV 460036.50 VB 117563.29 VV 232615.61 VV 192007.16 BE	4.4731e5 1.2397e6 3.6198e5 8.2863e5 7.9439e5	1.4928 1.4928 1.4928 1.4928 1.4928	1.9336 1.9336	Benzene Toluene Ethyl_Benzene m - Xylene p-Xylene	3.5393 3.5726 3.3688 3.5507 3.4977	1.9336
		12952614.00	1.20e6		7.4640	9.6678	••••••••	17.5290	9.6678

Group Report For : SURROGATE

a k	Ret lime (min)	Area {uV-sec}	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT	RAW AMT. PURFID PPM
	4.279 4.800 14.139	428547.94 968626.75 157058.73	51916.47 VV 3958.3718 98308.88 VV 40259.92 VE 1526.0536	1.4928 1.4928 1.4928	0.2320	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	108.2637 0.0000 102.9182	0.2320 0.2320 0.2320
2		1554233.50	190485.27	4.4784	0.6961		211.1819	0.6961

Chromatogram Sample Name: 3.6 Sample #: TC ;W;1 Date : 08/22/95 11:02 Page 1 of 1 : l:\data\tchrom\btex\hp\_u\UU\_\_522.raw FileName : BTEXU.ins Time of Injection: 08/21/95 20:08 Start Time : 0.00 min End Time : 21.20 min Low Point : -33.46 mV High Point: 786.15 mV Scale Factor: Plot Offset: -34 mV Plot Scale: 820 mV -12.746.90 . . . .00 550--500-Response [m/ 450 403 350 000 250 200 190 50 11.5 TOLOLINE

10

12

15

Software Version: 3.2 <16C2O>

Sample Name: 7.2 Sample Number: TC ;W;1

Time

: 08/22/95 11:02

Operator : RR

Study

: MODWG;1;PQL

Instrument : HP\_U AutoSampler : NONE

Channel : B

A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial # : 4153271317 Data Acquisition Time: 08/21/95 20:36

Delay Time : 0.00 min. End Time : 21.20 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_\_523.raw Result File : l:\data\tchrom\btex\hp\_u\UU\_523.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc Sample File : L:\DATA\TCHROM\BTEX\METHODS\UWG08215.smp Sequence File : 1:\data\tchrom\btex\methods\btexu.seq

nj. Holume : 2 ul ampte Amount : 1.0000 Area Reject

: 100.00 Dilution Factor : 1.00

7.2 = 3721.91 0.001935

# PURFID Area Percent Report

Peak #	Ret Time (min)	Area [uV-sec]	Height BL (uV)	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 12 13 14	3.414 3.707 3.915 4.279 4.798 6.908 10.874 11.157 12.750 13.831 14.139 14.479 14.671	5776835.50 1816819.25 3157275.75 484171.31 1008043.31 8835031.00 2534454.50 5814579.00 5570364.00 94372.00 167363.23 11548.85 23005.73 3584813.50	523337.66 BV 228255.91 VV 405449.19 VV 55648.17 VV 98769.34 VB 919994.56 BB 232849.41 BV 472796.81 VV 388370.16 VE 6500.16 EV 41431.10 VV 2384.09 VB 9082.54 BV 1.03e6 VB	1.0000e6 1.0000e6 4.6551e5 4119.4507 1.2902e6 3.7671e5 8.6235e5 8.2672e5 1.0000e6 1588.1537 1.0000e6 1.0000e6	1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928	5.8038 5.8038 5.8038	Benzene 1,4-DIFLUOROBENZENE TFT Toluene Ethyl_Benzene m - Xylene o-Xylene 4-BROMOFLUOROBENZENE	5.7768 1.8168 6.7823 117.5330 0.0000 6.8476 6.7278 6.7427 6.7379 0.0944 105.3823 0.0116 0.0230 3.5848	5.8038 5.8038 5.8038 5.8038 5.8038 5.8038 5.8038 5.8038 5.8038 5.8038 5.8038 5.8038 5.8038
		38878672.00	4.41e6		20.8992	81.2533		268.0609	81.2533

# Group Report For :

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 4 5 6 7	3.915 6.908 10.874 11.157 12.750	3157275.75 8835031.00 2534454.50 5814579.00 5570364.00	405449.19 BV 919994.56 BB 232849.41 VV 472796.81 BV 388370.16 BE	4.6551e5 1.2902e6 3.7671e5 8.6235e5 8.2672e5	1.4928 1.4928 1.4928 1.4928 1.4928	3.8681 3.8681 3.8681	Benzene Toluene Ethyl_Benzene m - Xylene o-Xylene	6.7823 6.8476 6.7278 6.7427 6.7379	3.8681 3.8681 3.8681
		25911704.00	2.41e6		7.4640	19.3405		33.8383	19.3405

# Group Report For : SURROGATE

ak #	Ret Time įminj	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT	RAW AMT. PURFID PPM
2 3 j8	4.279 4.798 14.139	484171.31 1008043.31 167363.23	55648.17 VV 98769.34 VB 41431.10 VV		1.4928 1.4928 1.4928	0.2477	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	117.5330 0.0000 105.3823	0.2477
		165,9577.88	195848.63		4.4784	0.7432		222.9153	0.7432

Sample Name : 7.2
FileName : l:\data\tchrom\btex\hp\_u\UU\_\_523.raw Sample #: TC ;W;1 Date : 08/22/95 11:02 Page 1 of 1 : BTEXU.ins Time of Injection: 08/21/95 20:36 Start Time : 0.00 min End Time : 21.20 min Low Point : -44.14 mV High Point : 1000.00 mV Scale Factor: Plot Offset: -44 mV Plot Scale: 1044 mV -12.753.41 4.28 4.80 -6.91 990 .... 300 200 Kesponse [m7 000 500-490 ---300 200-100 - BROMOFI.-TOLUENE 0 12 18 20

Retentio

oftware Version: 3.2 <16C2O>

Sample Name : 9.0 pmple Number: TC ;W;1 perator

Time Study : 08/22/95 11:02 : MODWG; 1; PQL

: RR

Instrument : HP\_U AutoSampler : NONE

Channel: B

A/D mV Range : 1000

ck/Vial : 0/0

Thterface Seriai # : 4153271317 Data Acquisition Time: 08/21/95 21:05 Delay Time : 0.00 min.

: 21.20 min. nd Time mpling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_u\UU\_524.raw
Result File : l:\data\tchrom\btex\hp\_u\UU\_524.rst strument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXU.ins ocess File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDU.prc ample rile : L:\DATA\TCHROM\BTEX\METHODS\UWGO8215.smp Sequence rile : L:\data\tchrom\btex\methods\btexu.seq

j. Volume : 2 ui mpte Amount : 1.0000

Area Reject Dilution Factor : 1.00

: 100.00

124.50 0.002007

# PURFID Area Percent Report

¤eak F	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT	RAW AMT. PURFID PPM
6 7 11	3.423 3.716 3.927 4.289 4.808 6.908 10.891 11.176 12.771 13.834 14.142 14.481 14.674 15.775	7025459.50 2306980.75 3839854.50 519787.19 1020886.63 10544455.00 3155287.75 7137403.00 6866657.50 86937.00 160211.25 10990.16 35686.16 3835328.50	638485.25 BV 279523.53 VV 500306.44 VV 57145.21 VV 99032.28 VB 1.00e6 BB 287554.22 BV 591174.38 VV 486648.72 VE 7158.85 EV 40890.87 VV 2655.34 VB 11974.53 BV 1.03e6 VB	9.9999e5 4.7144e5	1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928 1.4928	6.9484 6.9484 6.9484 6.9484 6.9484 6.9484 6.9484 6.9484 6.9484 6.9484 6.9484	Benzene 1,4-DIFLUOROBENZENE TFT Toluene Ethyl_Benzene m - Xylene o-Xylene 4-BROMOFLUOROBENZENE	7.0255 2.3070 8.1448 124.5914 0.0000 8.0697 8.2705 8.1725 8.2014 0.0869 99.6098 0.0110 0.0357 3.8353	6.9484 6.9484 6.9484 6.9484 6.9484 6.9484 6.9484 6.9484 6.9484 6.9484 6.9484
		46545928.00	5.04e6		20.8992	97.2773		278.3615	97.2773

# oup Report For :

	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 7	3.927 6.908 10.891 11.176 12.771	3839854.50 10544455.00 3155287.75 7137403.00 6866657.50	500306.44 BV 1.00e6 BB 287554.22 VV 591174.38 BV 486648.72 BE	4.7144e5 1.3066e6 3.8151e5 8.7333e5 8.3725e5	1.4928 1.4928 1.4928 1.4928 1.4928	4.7088 4.7088 4.7088	Benzene Toluene Ethyl_Benzene m - Xylene o-Xylene	8.1448 8.0697 8.2705 8.1725 8.2014	4.7088 4.7088 4.7088 4.7088 4.7088
		31543658.00	2.87e6		7.4640	23.5442		40.8589	23.5442

# Group Report For : SURROGATE

	Ret (ime (min)	Area [uV-xec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT	RAW AMT. PURFID PPM
2	4.289 4.808 14.142	519787.19 1020886.63 160211.25	57145.21 VV 99032.28 VB 40890.87 VV		1.4928 1.4928 1.4928	0.2539	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	124.5914 0.0000 99.6098	
_		1700885.00	197068.38		4.4784	0.7617	• • • • • • • • • • • • • • • • • • • •	224.2012	0.7617

Chromatogram Sample #: TC ;W;1
Date : 08/22/95 11:02 Sample Name: 9.0 Page 1 of 1 : l:\data\tchrom\btex\hp\_u\UU\_\_524.raw FileName : BTEXU.ins Time of Injection: 08/21/95 21:05 Method Start Time : 0.00 min End Time : 21.20 min Low Point : -44.12 mV High Point: 1000.00 mV Scale Factor: Plot Offset: -44 mV Plot Scale: 1044 mV 6.91 ::: a:C 200 Kespanse [m7 o00 500 ---300 ----200 100 HOMORE X A EME  $\odot$ 2 12 10 18 16 .:0

# CHAIN OF CUSTODY AND SAMPLE RECEIPT CHECKLIST

17011

# Environmental Laboratory 8880 Interchange Drive Houston, Texas 77054 713/660-0901

Analysis Request and Chain of Custody Record

<del>Pipi ku ku</del>			6					
Project No.	Client	Client/Project Name				Project Location		
1315-193	3	Minneapolis	ANCB S	Н		Misneagelis, Minnesota	818	
Field Date Date Sample No./ and Editionation Time Co	dmoO	Sample Container (Size/Mat'I)	Sample Type (Liquid, Sludge, Etc.)	Preser- vative		ANALYSIS REQUESTED	LABORATORY REMARKS	rory KS
1 Sp-11-8 to 600-129	347	64675, 1 L. K.C.	Aqueous	HNO3	75741 Le	Total Leap (SW6010)	Bling Duplicate	CBTC
``		11- GIASS		4CI	Total Petrole	CI Total Peterbern Highwanish - DRO mod.)		
2	2	3 4021 160		104	TPH-G	TPH-G-RO (WONK MO.)		
` →		3 624		HC!	VOC, (Sw 8240)	(0280)	<b>&gt;</b>	
0021 H-MW	\ \	1L G-105S		HCI	IPH-DI	TPH-DRO (WDNR M.d.)		
2	<i>j</i> .	IL Plastic		HNOS	J 14707	ToTAI LEAD (SW6010)		
,	7	3 Tem 100		HCI	TPH-GR	TPH-GRO (WDAR MOd.)		
<i>'</i>		5 40,111,014	/	Hel	VOCS (SW8240)	(0128m		
651-63 EB 1105		1L G-1855		HCI	TPH-D	TPH-DRO (WDNR mod.)	EQUIPT. BLANK	ANK
\ \ \		16 P19571C	$\rightarrow$	HWaz	TOTA! 20	TOTAL LEAD (SW6010)	$\rightarrow$	
Samplers: (Signature)	E 82	Relinquished by: (Signaffae)	add (		Date: 8-17-95 Time: 1700	]	Date: 8/17/45 Intact	
A Molle	S. B.	Relinquished by: (Signature)				Received by: D	Date: Intact	
OFTECH	E.S.	Relinquished by: (Signature)				Received by: D	lintact	
					Time:		Time:	J
SAMPLER REMARKS:						Recommend Response Discourse (Signature)	Date: 8/0/41 Laboratory No. Time: 0430	·
Seal # 1315-193 A						Data Hosults fo: Russ (1954 - Of Jakes (210) 731-000	0000	

Environmental Laboratory 8880 Interchange Drive Houston, Texas 77054 713/660-0901

# Analysis Request and Chain of Custody Record

Project No.	Ö.	Client/Project Name				Project Location	
1315-193	2	Minnesfelis	S ANCB	SI		Minnespolis, MinnesoTH	650 T.A
Field Date Sample No./ and Identification Time	Grab	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preser- vative		ANALYSIS REQUESTED	LABORATORY REMARKS
8-17-45 (57-63 EB 1105	7	3 4021 VOA	Havenus	HC)	TPH-6	PH-GRO (WDNR Mod.)	Equipt. Blank
->	7	3 46.71 10.79	)	HC1	VOCS	(Sw Berro)	<b>→</b>
TRIY BAOK 8-5-45		2 40 ml VOA	1	HCI	Vocs	(sugaro)	TRIP BLANK
			•				
Samplers: (Signature)		Relinquished by			Date: 8-17-95	Received by: Date: Signature	8/17/4mact
June Or	8	and the second	a Con		Time: 1700	in along	705
A Andr	3	Relinquished by: (Signature)			Date: Time:	Received by: Date: (Signature)	Intact
OFTECH		Relinquished by: (Signature)			Date:	Received by: Date: (Signature)	Intact
					Time:	lime:	
SAMPLER REMARKS:				-		Received for labbratory: Date: 8 (Signatory Time:	8 /0/43 Laboratory No.
Seal # 1315-193 A						Data Fresults to! Ress (45,1-0) Tech (210) 73-2200	200

# SPL HOUSTON ENVIRONMENTAL LABORATORY

# SAMPLE LOGIN CHECKLIST

LOT	: 8/18/95 TIME: 0930 CLIENT NO NO CONTRACT NO NT SAMPLE NOS		
SPL	sample nos.: 9508719		
		YES	<u>NO</u>
1.	Is a Chain-of-Custody form present? Is the COC properly completed? If no, describe what is incomplete:	<u> </u>	
	If no, has the client been contacted about it? (Attach subsequent documentation from client about th	- - - - N/A- e situation	on)
3.	Is airbill/packing list/bill of lading with shipment?  If yes, ID#:		
4. 5. 6.	Is a USEPA Traffic Report present? Is a USEPA SAS Packing List present? Are custody seals present on the package? If yes, were they intact upon receipt?		
<b>7.</b>	Are all samples tagged or labeled?  Do the sample tags/labels match the COC?  If no, has the client been contacted about it?  (Attach subsequent documentation from client about the contacted about the conta	N/A e situation	
8.	Do all shipping documents agree?  If no, describe what is in nonconformity:		
9. 10. 11.	Condition/temperature of shipping container:  Condition/temperature of sample bottles:  Sample Disposal?:  SPL disposal Retur	Intac Good n to clie	t
NOTE	S (reference item number if applicable):		
	ST: DATE: 8 VERED FOR RESOLUTION: REC'D DATE: DATE: DATE:	118/95	



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 95 - 09 - 709

Approved for release by:

M. Scott Sample, Laboratory Director

Date 10/11/95

Karen Satterfield, Project Manager

Date: 10/14/95-



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-01

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

DATE: 10/11/95

PROJECT: Water Analysis SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

**SAMPLE ID:** 591-001MW

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 11:50:00

DATE RECEIVED: 09/20/95

ANALYTICAL DATA

PARAMETER RESULTS DETECTION UNITS LIMIT GC/FID Diesel-Extractables 0.30 0.1 mg/L

WI LUFT DRO

Analyzed by: SEG

Date: 09/25/95 20:05:00

Liquid-liquid extraction

09/21/95

METHOD 3510 \*\*\* Analyzed by: RN

Date: 09/21/95 17:00:00

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-01

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/95

PROJECT: Water Analysis

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

**SAMPLE ID: 591-001MW** 

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 11:50:00

DATE RECEIVED: 09/20/95

ANALYTICA	L DATA		
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	ND	5	ug/L
Bromodichloromethane	ND	. 5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
2-Hexanone	ND	10	$\mathtt{ug}/\mathtt{L}$
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	$\mathtt{ug}/\mathtt{L}$

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-01

Operational Tech

SAMPLE ID: 591-001MW

SURROGATES	AMOUNT	*	LOWER	UPPER
1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene	<b>SPIKED</b>	RECOVERY	<b>LIMIT</b>	LIMIT
	50 ug/L	104	76	114
	50 ug/L	100	88	110
	50 ug/L	96	86	115

ANALYZED BY: JC

DATE/TIME: 09/21/95 15:10:00

METHOD: 8240, Volatile Organics - Water

\* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

Page 1

Data File: /chem/l.i/1950921.b/1264s07.d

Report Date: 21-Sep-1995 16:00

# SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950921.b/l264s07.d Lab Smp Id: 9509709-01A

Client Smp ID: 591-001MW

Inst ID: l.i

Inj Date : 21-SEP-1995 15:10 Operator : JC Smp Info : 9509709-01A-8240W/1X Misc Info : L264W1/L264B01/264CC1

Comment

: /chem/l.i/1950921.b/lvoclpw.m Method

Meth Date : 21-Sep-1995 10:52 jimmy Quant Type: ISTD Cal Date : 21-SEP-1995 10:29 Cal File: 1264cc1.d

Als bottle: 13 Dil Factor: 1.000 Integrator: HP RTE

Compound Sublist: normal.sub

Target Version: 3.10

							CO	NCENTRA	TIONS
		QUANT SIG					ON-C	OLUMN	FINAL
<b>C</b> O	mpounds	MASS	RT	EXP RT	REL RT	RESPONSE	(	ng)	( ug/L)
-	*******	===	**	*****			===		*****
_	23 Bromochloromethane	128.00	5.018	5.008	(1.000)	26695		250	
	32 1,4-Difluorobenzene	114.00	6.729	6.720	(1.000)	130431		250	
	50 Chlorobenzene-d5	117.00	10.910	10.900	(1.000)	106316		250	
	26 1,2-Dichloroethane-d4	102.00	5.793	5.784	(1.155)	10977		260	52
\$	43 Toluene-d8	98.00	8.958	8.948	(0.821)	139865		250	50
<u> </u>	61 Bromofluorobenzene	95.00	12.586	12.585	(1.154)	53014		240	48

ta File: /chem/l.i/1950921.b/1264s07.d Page 2

eport Date: 21-Sep-1995 16:00

# SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

strument ID: 1.i

ub File ID: 1264s07.d ab Smp Id: 9509709-01A

nalysis Type: VOA lant Type: ISTD

erator: JC

ethod File: /chem/l.i/1950921.b/lvoclpw.m

sc Info: L264W1/L264B01/264CC1

Calibration Date: 09/21/95 Calibration Time: 1029 Client Smp ID: 591-001MW

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	34580 181594 146649	90797	69160 363188 293298	26695 130431 106316	

COMPOIND	CERTAIN A DD	RT	LIMIT	05,455	
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
:======================================	=======	=======	=======	=======	======
23 Bromochloromethane	5.01	4.51	5.51	5.02	0.20
32 1,4-Difluorobenzene	6.72	6.22	7.22	6.73	0.15
50 Chlorobenzene-d5	10.90	10.40	11.40	10.91	0.09

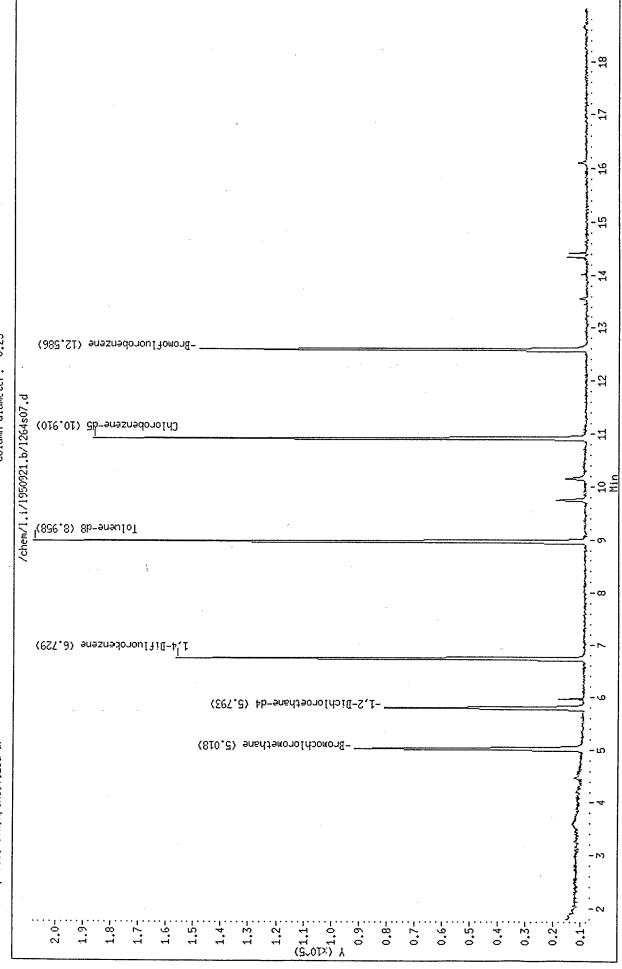
REA UPPER LIMIT = +100% of internal standard area.
REA LOWER LIMIT = - 50% of internal standard area.

UPPER LIMIT = + 0.50 minutes of internal standard RT.
LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/1.i/1950921.b/1264s07.d
Date : 21-SEP-1995 15:10
Client ID: 591-001MW
Sample Info: 9509709-01A-8240W/1X
Purge Volume: 5.0
Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

0.25 Operator: JC Column diameter:



tware Version: 3.2 <16C20>

ple Name : 9509709-01B

ole Number: SC ;W

: 09/25/95 20:34 Time

Study : DROW

rator : SEG

trument : HP\_T

Channel: A A/D mV Range: 1000

oSampler : HP 7673A k/Vial : 0/0

erface Serial #: 4118271220 Data Acquisition Time: 09/25/95 20:05

ay Time : 0.50 min. Time : 28.25 min. pling Rate : 1.0000 pts/sec

Data File : l:\data\tchrom\pest\hp\_t\T\_\_222.raw ult File : l:\data\tchrom\pest\hp\_t\T\_\_222.rst trument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins cess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc ple file : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp

uence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

: 1 ul . Volume ple Amount : 1.0000 Area Reject Dilution Factor : 1.00

375.50, 61.60, 12.0 / 1000

# Area/Concentration Report

2.692 1338.00 262.82 BB 5.0000e5 0.5066 190.2282 0.0077 2.929 3605.00 593.91 BB 5.0000e5 0.5066 190.2282 0.0072 3.150 4304.53 785.90 BV 5.0000e5 0.5066 190.2282 0.0086 3.488 16002.47 1834.11 VV 5.0000e5 0.5066 190.2282 0.0320 3.585 25502.41 2712.80 VV 5.0000e5 0.5066 190.2282 0.0510 3.904 8466.00 1857.40 VV 5.0000e5 0.5066 190.2282 0.0510 4.035 134888.03 17918.16 VE 4.9999e5 0.5066 190.2282 0.2698 4.275 28329.00 2648.39 EV 5.0000e5 0.5066 190.2282 0.2698 4.275 28329.00 2648.39 EV 5.0000e5 0.5066 190.2282 0.0567 4.542 26655.97 4608.69 VV 5.0000e5 0.5066 190.2282 0.0533 4.629 57526.28 614.73 VV 5.0000e5 0.5066 190.2282 0.0533 4.629 57526.28 614.73 VV 5.0000e5 0.5066 190.2282 0.01151 4.846 45236.88 2750.01 VV 5.0000e5 0.5066 190.2282 0.0905 5.329 8410.84 887.22 VV 4.9999e5 0.5066 190.2282 0.0168 5.718 13901.22 2195.43 VV 5.0000e5 0.5066 190.2282 0.0278 5.851 15194.50 2246.61 VB 5.0000e5 0.5066 190.2282 0.0278 5.851 15194.50 2246.61 VB 5.0000e5 0.5066 190.2282 0.0304 6.590 1171.63 236.97 VV 5.0000e5 0.5066 190.2282 0.0040 6.590 1171.63 236.97 VV 5.0000e5 0.5066 190.2282 0.00040 6.590 1171.63 236.97 VV 5.0000e5 0.5066 190.2282 0.00023 6.744 2269.72 376.14 VB 5.0000e5 0.5066 190.2282 0.00023 6.747 592.00 135.83 BB 4.9999e5 0.5066 190.2282 0.00023 6.749 592.00 135.83 BB 4.9999e5 0.5066 190.2282 0.00023 6.749 592.00 135.83 BB 4.9999e5 0.5066 190.2282 0.00023 6.749 592.00 135.83 BB 4.9999e5 0.5066 190.2282 0.0012 7.127 2257361.00 344358.03 BV 5.0000e5 0.5066 190.2282 0.0012 7.127 2257361.00 344358.03 BV 5.0000e5 0.5066 190.2282 0.0012 8.120 190896.25 9117.17 VV 1778.5000 0.5066 190.2282 0.1351 9.049 56754.00 2329.23 VV 5.0000e5 0.5066 190.2282 0.01351 9.049 56754.00 2329.23 VV 5.0000e5 0.5066 190.2282 0.01351 9.055 12070.31 1227.58 VV 1778.5000 0.5066 190.2282 0.0012	
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11.051 112884.25 32840.56 VV 5.0000e5 0.5066 190.2282 0.2258	
11.784 1632.44 62.30 VB 1883.5000 0.5066 190.2282 o-Terphenyl 0.8667	
12.169 706.00 62.33 BB 5.0000e5 0.5066 190.2282 0.0014	
) 12.457 4022.25 646.60 BV 5.0000e5 0.5066 190.2282 0.0080	
12.594 5933.81 1061.80 vv 5.0000e5 0.5066 190.2282 0.0119	
12.727 5064.94 1053.54 VB 5.0000e5 0.5066 190.2282 0.0101	
12.868 2047.00 592.15 BB 5.0000e5 0.5066 190.2282 0.0041	

up Report For : SURROGATES

3755072.50 476440.66

.k	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
;	8.120 11.784	190896.25 1632.44			0.5066 0.5066	,,,,,,,	2-FLUOROBIPHENYL o-Terphenyl	107.3355 0.8667	
-		192528.69	9179.47		1.0132	19.5066		108.2022	

122.0900

16.2109 6087.3018

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_222.TX0

#### Chromatogram

ple Name: 9509709-018

eName : l:\data\tchrom\pest\hp\_t\T\_\_222.raw

hod : DIESELT.ins

rt Time : 0.50 min le Factor: 1

End Time : 28.25 min

Plot Offset: -20 mV

Sample #: SC ;W

Date: 09/25/95 20:34

Time of Injection: 09/25/95

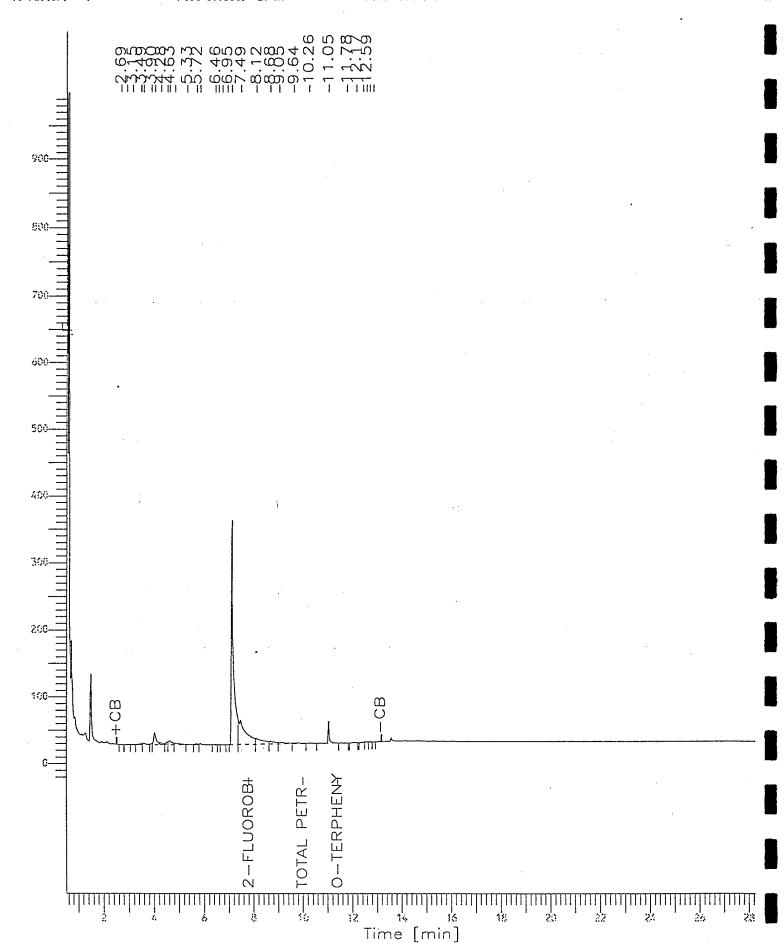
Low Point : -20.12 mV

20:05

High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1020 mV





8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-02

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/95

PROJECT: Water Analysis SITE: Minneapolis, MN SAMPLED BY: Provided by SPL SAMPLE ID: Trip Blank-1

PROJECT NO: 1315-193
MATRIX: WATER
DATE SAMPLED: 09/13/95
DATE RECEIVED: 09/20/95

	CAL DATA		
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
,1-Dichloroethane	ND	.5	ug/L
l,1-Dichloroethene	ND	5	ug/L
l,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
L,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
rans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
<b>Tetrachloroethene</b>	ND	5	ug/L
<b>Toluene</b>	ND	5	ug/L
l,1,1-Trichloroethane	ND	5	ug/L
l,1,2-Trichloroethane	ND	5	ug/L
<b>Frichloroethene</b>	ND	5	ug/L
Frichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-02

Operational Tech

SAMPLE ID: Trip Blank-1

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4 Toluene-d8	50 ug/L	102	76	114
4-Bromofluorobenzene	50 ug/L	100	88	110
+ promoridoropenzene	50 ug/L	96	86	115

ANALYZED BY: JC

DATE/TIME: 09/21/95 15:35:00

METHOD: 8240, Volatile Organics - Water

\* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Pata File: /chem/l.i/l950921.b/l264s08.d

Report Date: 21-Sep-1995 16:03

# SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950921.b/l264s08.d

Lab Smp Id: 9509709-02A Client Smp ID: TRIP BLANK-1

Inj Date : 21-SEP-1995 15:35

Operator : JC Inst ID: l.i

Emp Info : 9509709-02A-8240W/1X Misc Info : L264W1/L264B01/264CC1

Comment

Method : /chem/l.i/l950921.b/lvoclpw.m Meth Date : 21-Sep-1995 10:52 jimmy (Cal Date : 21-SEP-1995 10:29 Quant Type: ISTD Cal File: 1264cc1.d

Als bottle: 14
Dil Factor: 1.000
Integrator: HP RTE

Target Version: 3.10

Compound Sublist: normal.sub

							CONCENTRA	ATIONS
		QUANT SIG					ON-COLUMN	FINAL
	ompounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ug/L)
=		****	==	****	=====	=======	322322	3222622
7	23 Bromochloromethane	128.00	5.018	5.008	(1.000)	26091	250	
*	32 1,4-Difluorobenzene	114.00	6.729	6.720	(1.000)	128235	250	
	50 Chlorobenzene-d5	117.00	10.910	10.900	(1.000)	103561	250	
	26 1,2-Dichloroethane-d4	102.00	5.793	5.784	(1.155)	10564	250	51
\$	43 Toluene-d8	98.00	8.958	8.948	(0.821)	134951	250	50
S	61 Bromofluorobenzene	95.00	12.585	12.585	(1.154)	51396	240	48

ta File: /chem/l.i/1950921.b/1264s08.d Page 2

port Date: 21-Sep-1995 16:03

# SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

strument ID: l.i

b File ID: 1264s08.d

ib Smp Id: 9509709-02A alysis Type: VOA

ant Type: ISTD

perator: JC

thod File: /chem/l.i/1950921.b/lvoclpw.m

sc Info: L264W1/L264B01/264CC1

Calibration Date: 09/21/95 Calibration Time: 1029 Client Smp ID: TRIP BLANK-1 Level: LOW

Sample Type: WATER

		AREA	LIMIT		[
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	34580 181594 146649	17290 90797 73324	69160 363188 293298	26091 128235 103561	-24.55 -29.38 -29.38

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.01	4.51	5.51	5.02	0.19
	6.72	6.22	7.22	6.73	0.14
	10.90	10.40	11.40	10.91	0.09

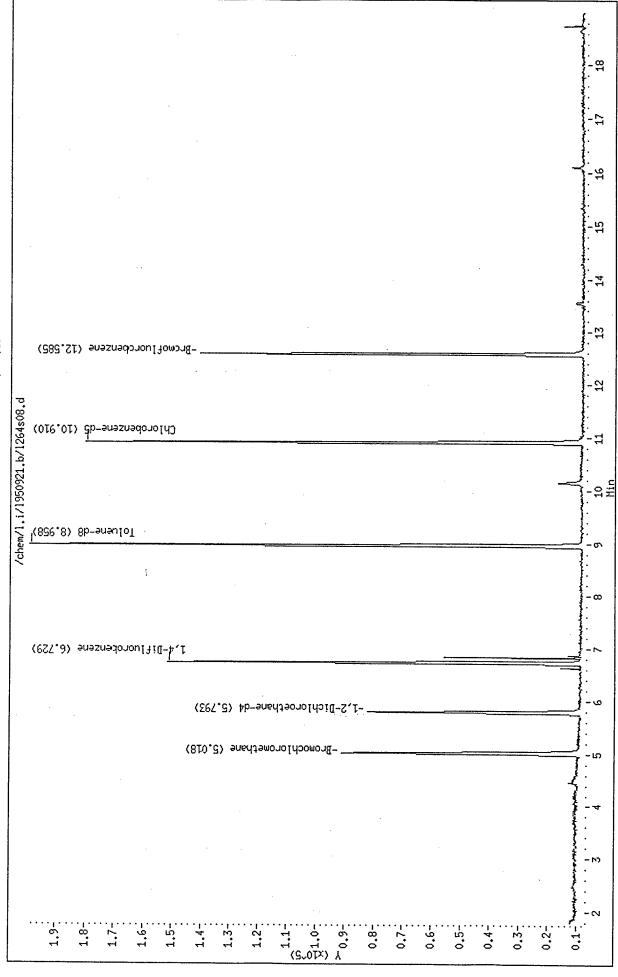
.EA UPPER LIMIT = +100% of internal standard area. .EA LOWER LIMIT = -50% of internal standard area.

UPPER LIMIT = + 0.50 minutes of internal standard RT. LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/l.i/1950921.b/1264s08.d Date : 21-SEP-1995 15:35 Client ID: TRIP BLANK-1 Sample Info: 9509709-02A-8240M/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

0.25 Operator: JC Column diameter:





8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

## Certificate of Analysis No. H9-9509709-03

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

DATE: 10/11/95

mg/L

PROJECT: Water Analysis

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 591-Equipment Blank

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 11:35:00

DATE RECEIVED: 09/20/95

ANALYTICAL DATA

PARAMETER RESULTS DETECTION UNITS

09/21/95

GC/FID Diesel-Extractables ND 0.1

WI LUFT DRO

Analyzed by: SEG

Date: 09/25/95 20:40:00

Liquid-liquid extraction

METHOD 3510 \*\*\*
Analyzed by: RN

Date: 09/21/95 17:00:00

ND - Not detected.

Notes: \*Raf: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

## Certificate of Analysis No. H9-9509709-03

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/95

PROJECT: Water Analysis SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

**SAMPLE ID:** 591-Equipment Blank

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 11:35:00

DATE RECEIVED: 09/20/95

ANALYTICAL			
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	ND	5	ug/L
Bromodichloromethane	ND	. 5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	$\mathtt{ug}/\mathtt{L}$
2-Butanone	ND	20	$\mathtt{ug}/\mathtt{L}$
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5 .	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L
			<del>- •</del>

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9505709-03

Operational Tech

SAMPLE ID: 591-Equipment Blank

SURROGATES	AMOUNT	*	LOWER	UPPER
1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene	<b>SPIKED</b> 50 ug/L 50 ug/L 50 ug/L	RECOVERY 102 100 92	<b>LIMIT</b> 76 88 86	LIMIT 114 110 115

ANALYZED BY: JC

DATE/TIME: 09/21/95 16:00:00

METHOD: 8240, Volatile Organics - Water

\* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

Page 1

Data File: /chem/l.i/1950921.b/l264s09.d

Report Date: 22-Sep-1995 07:16

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950921.b/l264s09.d

Lab Smp Id: 9509709-03A Client Smp ID: 591-EQUIPMENT BLANK

Inj Date : 21-SEP-1995 16:00

Operator : JC Inst ID: l.i

Smp Info : 9509709-03A-8240W/1X Misc Info : L264W1/L264B01/264CC1

Comment

Method: /chem/l.i/l950921.b/lvoclpw.m Meth Date: 21-Sep-1995 10:52 jimmy (Cal Date: 21-SEP-1995 10:29 (Cal Bottle: 15) Dil Factor: 1.000 Integrator: HP RTE Quant Type: ISTD Cal File: 1264cc1.d

Compound Sublist: normal.sub Target Version: 3.10

_								CONCENTRA	ATIONS
			QUANT SIG					ON-COLUMN	FINAL
Ê	ompou	nds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ug/L)
- 4		*******	2 = =	==	=====	=====	=======		
-	23 !	Bromochloromethane	128.00	5.016	5.008	(1.000)	25476	250	
*	32	1,4-Difluorobenzene	114.00	6.728	6.720	(1.000)	125653	250	
	50 (	Chlorobenzene-d5	117.00	10.908	10.900	(1.000)	104429	250	
	26	1,2-Dichloroethane-d4	102.00	5.792	5.784	(1.155)	10312	250	51
\$	43 1	Toluene-d8	98.00	8.956	8.948	(0.821)	134884	250	50
ş	61 E	Bromofluorobenzene	95.00	12.593	12.585	(1.154)	50299	230	46

Page 2

ita File: /chem/l.i/1950921.b/l264s09.d

eport Date: 22-Sep-1995 07:16

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

strument ID: l.i

b File ID: 1264s09.d

ab Smp Id: 9509709-03A alysis Type: VOA

ant Type: ISTD

erator: JC

ethod File: /chem/l.i/1950921.b/lvoclpw.m

sc Info: L264W1/L264B01/264CC1

Calibration Date: 09/21/95

Calibration Time: 1029

Client Smp ID: 591-EQUIPMENT BLANK

Level: LOW

Sample Type: WATER

	AREA	LIMIT		:
ANDARD	LOWER	UPPER	SAMPLE	% DIFF
======	========	=======	=======	======
34580	17290	69160	25476	-26.33
181594	90797	363188	125653	-30.81
146649	73324	293298	104429	-28.79
			_	
	34580 181594	ANDARD LOWER ====== 34580 17290 181594 90797	ANDARD LOWER UPPER  34580 17290 69160 181594 90797 363188	ANDARD LOWER UPPER SAMPLE  34580 17290 69160 25476 181594 90797 363188 125653

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
:======================================	=======	=======	=======	=======	======
23 Bromochloromethane	5.01	4.51	5.51	5.02	0.16
32 1,4-Difluorobenzene	6.72	6.22	7.22	6.73	0.12
50 Chlorobenzene-d5	10.90	10.40	11.40	10.91	0.07

EA UPPER LIMIT = +100% of internal standard area.

EA LOWER LIMIT = - 50% of internal standard area.

UPPER LIMIT = + 0.50 minutes of internal standard RT.

LOWER LIMIT = - 0.50 minutes of internal standard RT.

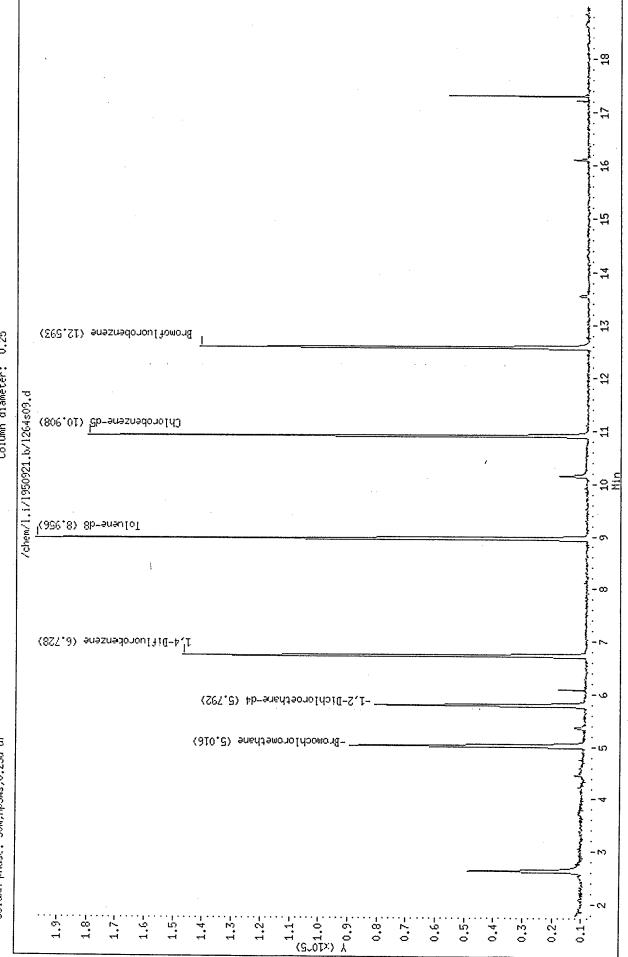
Data File: /chem/l.i/1950921,b/1264s09.d Date : 21-SEP-1995 16:00

Client ID: 591-EQUIPMENT BLANK

Sample Info: 9509709-03A-8240W/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

0.25 Operator: JC Column diameter:



'tware Version: 3.2 <16C20>

ple Name : 9509709-03B Time

ple Number: SC ;W

: 09/25/95 21:09 : DROW

Study

: SEG :rator

#### Area/Concentration Report

Strument : HP_T SoSampler : HP 7673A Sk/Vial : 0/0		Channel:	A A/D m	V Range : 10		X.	•
· .	271220 Data / in. in. pts/sec	Acquisition	Time: 09/2	5/95 20:40		0.5000	
strument File: L:\DATA\ cess File : L:\DATA\	tchrom\pest\hp rchrom\pest\me rchrom\pest\me rchrom\pest\me	_t\T223. THODS\DIESE THODS\DIESE THODS\DIESE	rst LT.ins LT.prc LT.smp		44.00. 60a.c	D Sup	)
j. Volume : 1 ul mple Amount : 1.0000		Area Rejec Dilution F		0.00 00	Ha Bollo	0.0	
=======================================		========	========	=========	======		
	1	Area/Concenti	ation Report				
ak Ret Time Area # [min] [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 2.891 8647.50	1052.42 BV	5.0000e5	0.5066	22.3403		0.0173	
2 3.145 4098.66	765.03 VV	5.0000e5	0.5066	22.3403		0.0082	
3 3.425 8437.81	729.32 VV	5.0000e5	0.5066	22.3403		0.0169	
4 3.593 9562.50	708.72 VV	5.0000e5	0.5066	22.3403		0.0191	
5 3.946 5681.16	618.65 VV	5.0000e5	0.5066	22.3403		0.0114	
6 4.115 9899.50	372.60 VV	5.0000e5	0.5066	22.3403		0.0198	
7 4.855 1387.81	273.42 VB	4.9999e5	0.5066	22.3403		0.0028	
3 5.104 755.08	129.91 BV	5.0000e5	0.5066	22.3403		0.0015 0.0124	
9 5.313 6189.23	867.75 VV	5.0000e5	0.5066 0.5066	22.3403 22.3403		0.0842	
3 5.553 42117.75 1 6.585 1373.00	1005.30 VE 108.54 EB	5.0000e5 5.0000e5	0.5066	22.3403		0.0028	
2 7.574 89976.75	4165.33 BV	1778.5000	0.5066	22.3403	2-FLUOROBIPHENYL	50.5914	
3 8.153 10168.88	1168.50 VV	5.0000e5	0.5066	22.3403		0.0203	
4 8.317 6076.56		5.0000e5	0.5066	22.3403		0.0122	
5 8.467 6149.19	514.80 VV	5.0000e5	0.5066	22.3403		0.0123	
5 <b>8.892</b> 6748.41	668.77 VV	5.0000e5	0.5066	22.3403		0.0135	
7 9.056 7146.88	504.79 VB	5.0000e5	0.5066	22.3403		0.0143	
3 9.764 1387.56	172.77 BV	5.0000e5	0.5066	22.3403	Takal Dakasi sum Humb	0.0028	
9 10.006 2183.47		1778.5000	0.5066	22.3403	Total Petroleum Hydr	1.2277 0.0020	
1 10.286 1021.00	208.70 BB	5.0000e5	0.5066	22.3403 22.3403		0.0028	
1 10.454 382.00 2 10.617 1273.13	97.42 BB 333.03 BV	5.0000e5 5.0000e5	0.5066 0.5066	22.3403		0.0026	
3 10.781 344.88	222.02 64			22.3403		0.0007	
_ ,	113.02 VB	5.0000e5	0.5066	22.3403			
4 10.887 26788.06	113.02 VB 8608.56 BV	5.0000e5 4.9999e5	0.5066	22.3403		0.0536	
4 10.887 26788.06 5 11.053 99092.59	8608.56 BV		0.5066 0.5066	22.3403 22.3403		0.0536 0.1982	
	8608.56 BV 31723.77 VV 13841.82 VB	4.9999e5	0.5066 0.5066 0.5066	22.3403 22.3403 22.3403	o-Terphenyl	0.0536 0.1982 43.6591	
5 11.053 99092.59 5 11.166 82231.88 7 12.611 1068.13	8608.56 BV 31723.77 VV 13841.82 VB 161.81 BV	4.9999e5 5.0000e5 1883.4999 5.0000e5	0.5066 0.5066 0.5066 0.5066	22.3403 22.3403 22.3403 22.3403	o-Terphenyl	0.0536 0.1982 43.6591 0.0021	XI
5 11.053 / 99092.59 5 11.166 82231.88	8608.56 BV 31723.77 VV 13841.82 VB	4.9999e5 5.0000e5 1883.4999	0.5066 0.5066 0.5066	22.3403 22.3403 22.3403	o-Terphenyl	0.0536 0.1982 43.6591	

oup Report For : SURROGATES

ak Ret Time # [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 7.574 3 11.166						2-FLUOROBIPHENYL o-Terphenyl	50.5914 43.6591	
	172208 63	18007 16		1.0132	17.4478		94.2505	

٩D 

#### Chromatogram

ample Name: 9509709-03B

: l:\data\tchrom\pest\hp\_t\T\_\_223.raw FileName

: DIESELT.ins

600

200

Response [mV]

Start Time : 0.50 min Scale Factor: 1

End Time : 28.25 min

Plot Offset: -20 mV

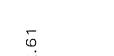
Sample #: SC ;W Date : 09/25/95 21:09

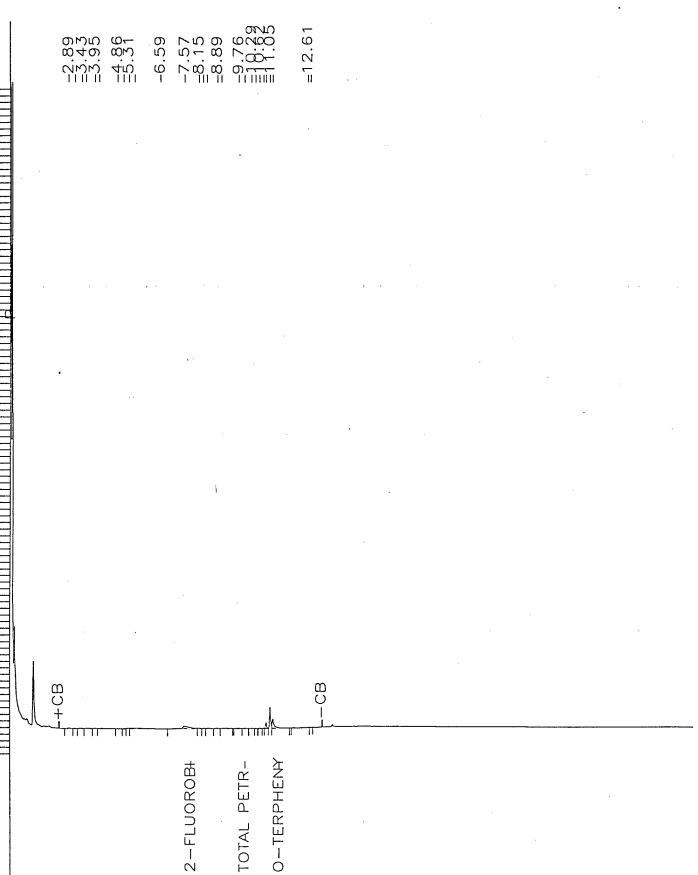
Time of Injection: 09/25/95 20:40 Low Point : -19.68 mV

High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1020 mV





18

18

22

Sβ

24

10

12

14

Time [min]



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

### Certificate of Analysis No. H9-9509709-04

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

DATE: 10/11/95

mg/L

PROJECT: Water Analysis

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 801-001MW

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 10:10:00

0.1

DATE RECEIVED: 09/20/95

ND

09/21/95

ANALYTICAL DATA

PARAMETER RESULTS DETECTION UNITS

GC/FID Diesel-Extractables

WI LUFT DRO

Analyzed by: SEG

Date: 09/25/95 21:15:00

Liquid-liquid extraction

METHOD 3510 \*\*\*

Analyzed by: RN

Date: 09/21/95 17:00:00

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

## Certificate of Analysis No. H9-9509709-04

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/95

PROJECT: Water Analysis

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 801-001MW

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 10:10:00

DATE RECEIVED: 09/20/95

ANALYTICAL	DATA		
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	ND	5	ug/L
Bromodichloromethane	. ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	. 5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	<b>5</b> ,	ug/L
1,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5 /	ug/L
2-Hexanone	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L
			J1 -

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-04

Operational Tech

SAMPLE ID: 801-001MW

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	102	76	114
Toluene-d8	50 ug/L	100	88	110
4-Bromofluorobenzene	50 ug/L	92	86	115

ANALYZED BY: JC

DATE/TIME: 09/21/95 16:27:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

Data File: /chem/l.i/1950921.b/1264s10.d

Report Date: 22-Sep-1995 07:16

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950921.b/1264s10.d

Lab Smp Id: 9509709-04A

Inst ID: l.i

Inj Date : 21-SEP-1995 16:27 Operator : JC Smp Info : 9509709-04A-8240W/1X Misc Info : L264W1/L264B01/264CC1

Comment

Method

Method : /chem/l.i/l950921.b/lvoclpw.m Meth Date : 21-Sep-1995 10:52 jimmy ( Quant Type: ISTD Cal Date : 21-SEP-1995 10:29 Cal File: 1264cc1.d

Als bottle: 16 Dil Factor: 1.000 Integrator: HP RTE

Target Version: 3.10

Compound Sublist: normal.sub

Client Smp ID: B01-001MW

							CONCENTRA	ATIONS
		QUANT SIG					ON-COLUMN	FINAL
E.	ompounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ug/L)
	**************************************	====	==	======		2222222	******	******
	23 Bromochloromethane	128.00	5.018	5.008	(1.000)	25704	250	
*	32 1,4-Difluorobenzene	114.00	6.729	6.720	(1.000)	122529	250	
	50 Chlorobenzene-d5	117.00	10.910	10.900	(1.000)	101312	250	
	25 1,2-Dichloroethane-d4	102.00	5.793	5.784	(1.155)	10478	260	51
- \$	43 Toluene-d8	98.00	8.957	8.948	(0.821)	131058	250	50
\$	61 Bromofluorobenzene	95.00	12.585	12.585	(1.154)	49010	230	46

Page 2

ta File: /chem/l.i/1950921.b/1264s10.d

eport Date: 22-Sep-1995 07:16

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

istrument ID: 1.i ab File ID: 1264s10.d 1b Smp Id: 9509709-04A

alysis Type: VOA lant Type: ISTD

erator: JC

ethod File: /chem/l.i/1950921.b/lvoclpw.m

sc Info: L264W1/L264B01/264CC1

Calibration Date: 09/21/95 Calibration Time: 1029 Client Smp ID: B01-001MW Level: LOW

Sample Type: WATER

	AREA	LIMIT		
STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======	=======	=======	=======	======
34580	17290	69160	25704	-25.67
181594	90797	363188	122529	-32.53
146649	73324	293298	101312	-30.92
	34580 181594	STANDARD LOWER ======== 34580 17290 181594 90797	=======	STANDARD         LOWER         UPPER         SAMPLE           ========         ====================================

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
:======================================	=======	=======	=======	=======	======
23 Bromochloromethane	5.01	4.51	5.51	5.02	0.19
32 1,4-Difluorobenzene	6.72	6.22	7.22	6.73	0.14
50 Chlorobenzene-d5	10.90	10.40	11.40	10.91	0.09

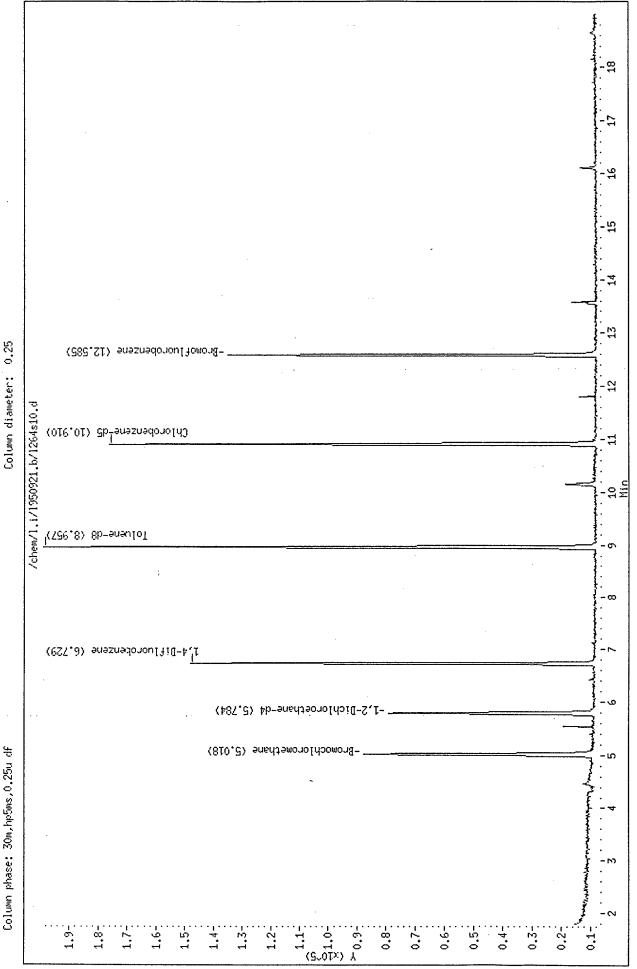
EA UPPER LIMIT = +100% of internal standard area. .EA LOWER LIMIT = - 50% of internal standard area.

UPPER LIMIT = + 0.50 minutes of internal standard RT. LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/l.i/1950921.b/1264s10.d
Date: 21-SEP-1995 16:27
Client ID: BO1-001MW
Sample Info: 9509709-04A-8240W/1X
Purge Volume: 5.0
Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

Operator: JC Column diameter:



tware Version: 3.2 <16C20> ...

ole Name : 9509709-048 : 09/25/95 21:43 Time

ole Number: SC ;W

Study

rator : SEG

trument : HP\_T

A/D mV Range: 1000 Channel: A

oSampler : HP 7673A </Vial : 0/0

erface Serial #: 4118271220 Data Acquisition Time: 09/25/95 21:15

: 0.50 min. Time : 28.25 min. oling Rate : 1.0000 pts/sec

Data File : l:\data\tchrom\pest\hp\_t\T\_\_224.raw ult File : l:\data\tchrom\pest\hp\_t\T\_\_224.rst trument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins cess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc ple File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp uence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Volume : 1 ul ple Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

41.18.28.29.10.36 (0.30da) 

#### Area/Concentration Report

k Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
2.669 2.939 3.148 3.419 3.596 3.914 5.117 5.326 5.861 6.589 7.599	444.00 4021.66 6284.88 9514.47 12927.59 30647.16 3980.00 3868.06 3669.88 1078.94 232508.81	84.41 BB 462.57 BV 1022.97 VV 915.20 VV 967.07 VV 1266.30 VE 199.29 EV 183.00 VV 281.22 VV 93.61 VB 5784.08 BE	5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 4.9999e5	0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066	21.0921 21.0921 21.0921 21.0921 21.0921 21.0921 21.0921 21.0921 21.0921	2-FLUOROBIPHENYL	0.0009 0.0080 0.0126 0.0190 0.0259 0.0613 0.0080 0.0077 0.0073 0.0022	
9.763 11.055 — 12.066	2017.00 103644.50 1748.00	174.93 EB 28415.60 BB 101.50 BB	1778.5000 1883.5000 5.0000e5	0.5066 0.5066 0.5066	21.0921	Total Petroleum Hydr o-Terphenyl	1.1341 55.0276 0.0035	
	416354.94	39951.75		7.0923	295.2898		187.0512	

#### up Report For : SURROGATES

k Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
7.599 11.055	232508.81 103644.50	5784.08 BE 28415.60 BB		0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	130.7331 55.0276	
	336153.31	34199.68		1.0132	34.0584		185.7607	

ort Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_224.TX0

#### Chromatogram

mple Name: 9509709-048

FileName

: DIESELT.ins tart Time : 0.50 min

cale Factor: 1

: l:\data\tchrom\pest\hp\_t\T\_\_224.raw

End Time : 28.25 min Plot Offset: -20 mV

Sample #: SC ;W

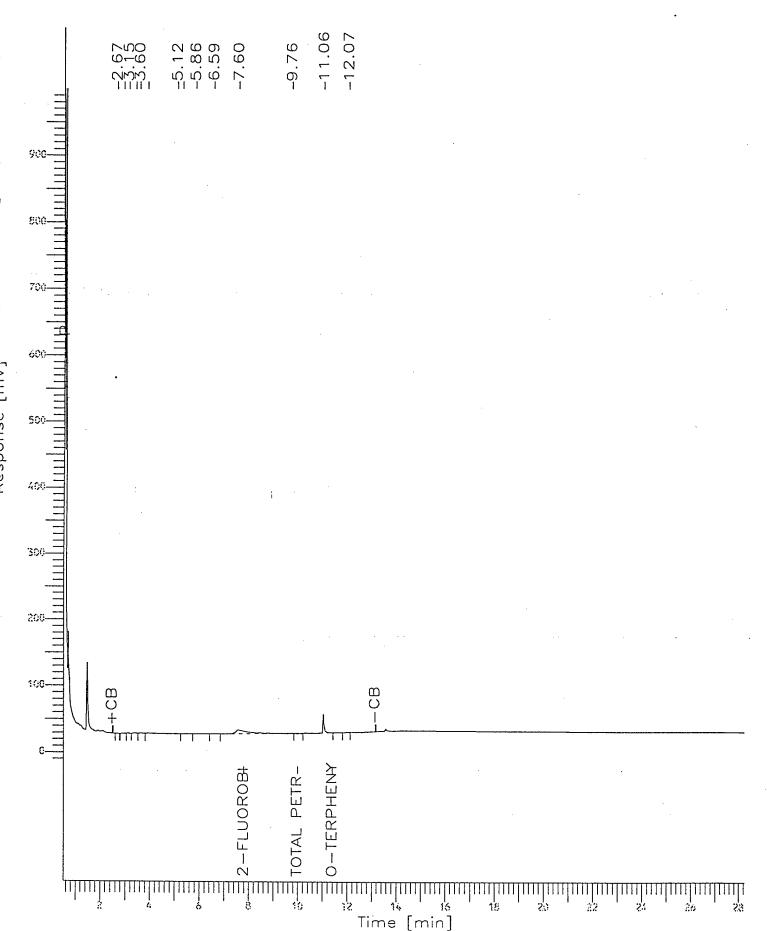
Date: 09/25/95 21:43

Time of Injection: 09/25/95 21:15

Low Point : -19.97 mV High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1020 mV





8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

## Certificate of Analysis No. H9-9509709-05

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/95

PROJECT: Water Analysis SITE: Minneapolis, MN

SAMPLED BY: Provided by SPL

SAMPLE ID: Trip Blank-2

PROJECT NO: 1315-193

MATRIX: WATER

**DATE SAMPLED:** 09/13/95 **DATE RECEIVED:** 09/20/95

ANALYTIC	AL DATA		
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	- 5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	· 5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-05

Operational Tech

SAMPLE ID: Trip Blank-2

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER	UPPER
1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene	50 ug/L 50 ug/L 50 ug/L	100 100 94	<b>LIMIT</b> 76 88 86	LIMIT 114 110 115

ANALYZED BY: JC

DATE/TIME: 09/21/95 16:52:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

ta File: /chem/l.i/1950921.b/1264s11.d Page 1

port Date: 22-Sep-1995 07:16

#### SPL Labs

Volatiles by 624/8240

ta file : /chem/l.i/l950921.b/l264s11.d b Smp Id: 9509709-05A ij Date : 21-SEP-1995 16:52

Client Smp ID: TRIP BLANK-1

erator : JC Inst ID: l.i

ip Info : 9509709-05A-8240W/1X sc Info : L264W1/L264B01/264CC1

mment

thod : /chem/l.i/1950921.b/lvoclpw.m th Date : 21-Sep-1995 10:52 jimmy Quant Type: ISTD

l Date : 21-SEP-1995 10:32 s bottle: 17 l Factor: 1.000 tegrator: HP RTE Cal File: 1264cc1.d

Compound Sublist: normal.sub rget Version: 3.10

					CONCENTRA	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
pounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
品单三型品品含含型品品品品品品品品品品品品品品品品品品品品品品品品品品品品品品品	***		****** *****		****	
23 Bromochloromethane	128.00	5.027	5.008 (1.000)	25807	250	
32 1,4-Difluorobenzene	114.00	6.738	6.720 (1.000)	123494	250	
50 Chlorobenzene-d5	117.00	10.910	10.900 (1.000)	100893	250	
26 1,2-Dichloroethane-d4	102.00	5.794	5.784 (1.152)	10375	250	50
43 Toluene-d8	98.00	8.958	8.948 (0.821)	131783	250	50
61 Bromofluorobenzene	95.00	12.595	12.585 (1.154)	49536	230	47

Data File: /chem/l.i/1950921.b/1264s11.d

Report Date: 22-Sep-1995 07:16

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1264s11.d Lab Smp Id: 9509709-05A Analysis Type: VOA

Quant Type: ISTD

Decrator: JC

Method File: /chem/l.i/1950921.b/lvoclpw.m

Misc Info: L264W1/L264B01/264CC1

Calibration Date: 09/21/95 Calibration Time: 1029

Client Smp ID: TRIP BLANK-1

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	34580 181594 146649	90797	69160 363188 293298	25807 123494 100893	-25.37 -31.99 -31.20

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	5.01	4.51	5.51	5.03	0.38
32 1,4-Difluorobenzene	6.72	6.22	7.22	6.74	0.28
50 Chlorobenzene-d5	10.90	10.40	11.40	10.91	0.09

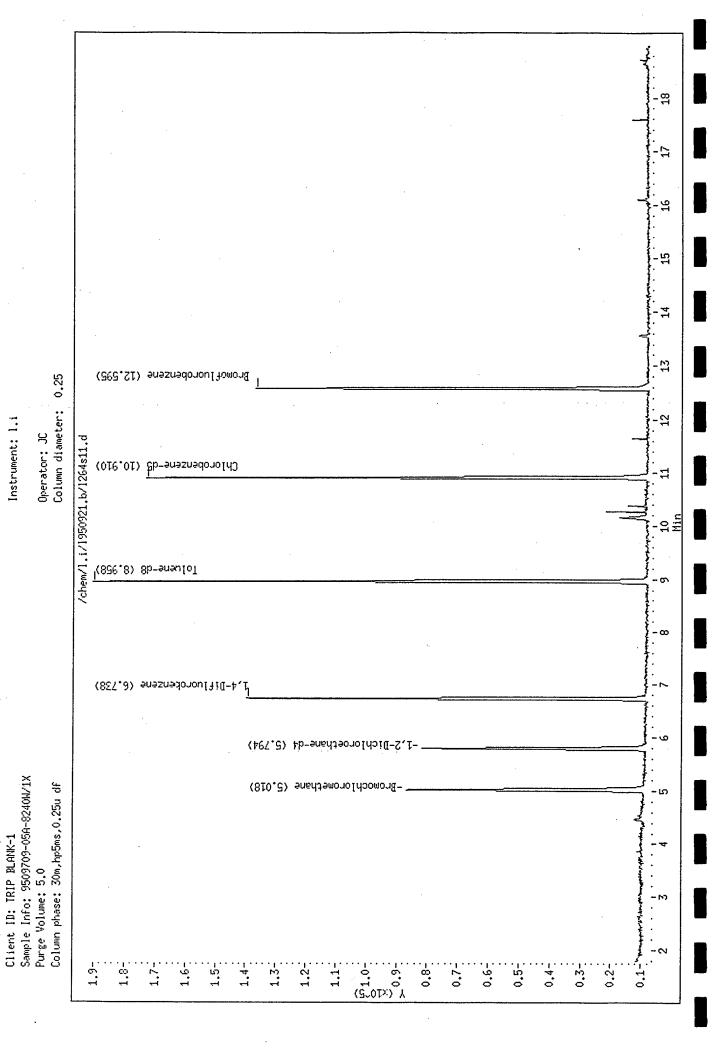
AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

T UPPER LIMIT = + 0.50 minutes of internal standard RT. T LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/1.i/1950921.b/1264s11.d Date : 21-5EP-1995 16:52





8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

## Certificate of Analysis No. H9-9509709-06

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

DATE: 10/11/95

PROJECT: Water Analysis SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 873-001MW

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 08:35:00

DATE RECEIVED: 09/20/95

ANALYTICAL DATA

PARAMETER RESULTS DETECTION UNITS

ND 0.1

0.1 mg/L

GC/FID Diesel-Extractables WI LUFT DRO

Analyzed by: SEG

Date: 09/25/95 21:50:00

Liquid-liquid extraction

09/21/95

METHOD 3510 \*\*\*
Analyzed by: RN

Date: 09/21/95 17:00:00

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-06

Operational Tech 4100 N.W. Loop 410 Ste. 230 San Antonio, TX 78229

ATTN: Russ Cason

10/11/95

PROJECT: Water Analysis

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 873-001MW

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 08:35:00

DATE RECEIVED: 09/20/95

<b>λΝλΤ.</b> Υπη	CAL DATA		
PARAMETER	RESULTS	PQL*	TILT TO C
Acetone	ND	100	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L ug/L
Chlorobenzene	ND	5	ug/L ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	. 5	ug/L
2-Hexanone	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-06

Operational Tech

SAMPLE ID: 873-001MW

SURROGATES	AMOUNT	<b>%</b>	LOWER	UPPER
1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene	<b>SPIKED</b> 50 ug/L 50 ug/L 50 ug/L	<b>RECOVERY</b> 98 100 92	<b>LIMIT</b> 76 88 86	LIMIT 114 110 115

ANALYZED BY: JC

DATE/TIME: 09/21/95 13:54:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

ata File: /chem/1.i/1950921.b/1264s04.d

⇒port Date: 21-Sep-1995 15:59

Page 1

#### SPL Labs

Volatiles by 624/8240

Client Smp ID: B73

Inst ID: l.i

ta file: /chem/l.i/1950921.b/1264s04.d ab Smp Id: 9509709-06A (1) Date: 21-SEP-1995 13:54 Derator: JC up Info: 9509709-06A-8240W/1X sc Info : L264W1/L264B01/264CC1

omment.

: /chem/l.i/1950921.b/lvoclpw.m ≥thod

eth Date : 21-Sep-1995 10:52 jimmy Quant Type: ISTD Cal File: 1264cc1.d il Date : 21-SEP-1995 10:29

s bottle: 10

l Factor: 1.000 tegrator: HP RTE Compound Sublist: normal.sub

erget Version: 3.10

					CONCENTRA	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
pounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
*************	***	**	*****	******	*****	*****
23 Bromochloromethane	128.00	5.025	5.008 (1.000)	28324	250	
32 1,4-Difluorobenzene	114.00	6.737	6.720 (1.000)	142826	250	
50 Chlorobenzene-d5	117.00	10.908	10.900 (1.000)	115895	250	
26 1,2-Dichloroethane-d4	102.00	5.792	5.784 (1.153)	10981	240	49
43 Toluene-d8	98.00	8.956	8.948 (0.821)	150291	250	50
51 Bromofluorobenzene	95.00	12.584	12.585 (1.154)	55571	230	46

Data File: /chem/l.i/1950921.b/1264s04.d

Report Date: 21-Sep-1995 15:59

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1264s04.d Lab Smp Id: 9509709-06A

Analysis Type: VOA Quant Type: ISTD

Operator: JC
Method File: /chem/l.i/1950921.b/lvoclpw.m

Misc Info: L264W1/L264B01/264CC1

Calibration Date: 09/21/95

Calibration Time: 1029

Client Smp ID: B73

Level: LOW Sample Type: WATER

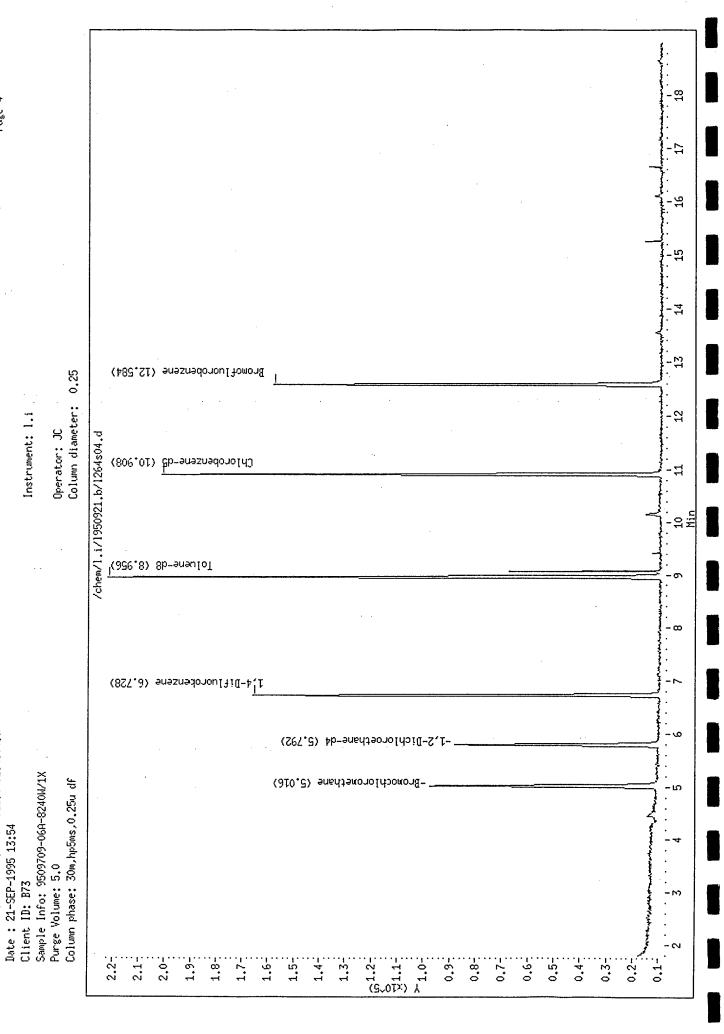
COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	34580 181594 146649	90797	69160 363188 293298	28324 142826 115895	-===== -18.09 -21.35 -20.97

COMPOUND         STANDARD         LOWER         UPPER           23 Bromochloromethane         5.01         4.51         5.5           32 1,4-Difluorobenzene         6.72         6.22         7.2           50 Chlorobenzene-d5         10.90         10.40         11.4	6.74	5.03 6.74 0.2
---	------	---------------------

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/1.i/1950921.b/1264s04.d



Software Version: 3.2 <16C20>

Sample Name : 9509709-068 Time : 09/25/95 22:18

Sample Number: SC ;W

Operator : SEG : DROW

Study

Instrument : HP\_T AutoSampler : HP 7673A Rack/Vial : 0/0 Channel: A A/D mV Range: 1000

Interface Serial # : 4118271220 Data Acquisition Time: 09/25/95 21:50

: 0.50 min. : 28.25 min. Delay Time End Time Sampling Rate: 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_225.raw Result File : l:\data\tchrom\pest\hp\_t\T 225.rst Instrument File: L:\DATA\TCHROM\PEST\METHOOS\DIESELT.ins

Process File : L:\DATA\TCHROM\PEST\METHOOS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHOOS\DIESELT.smp Sample File Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

: 100.00 Inj. Volume : 1 ul Area Reject Sample Amount : 1.0000 Dilution Factor : 1.00

27-10:13 A. 25 (0.50 da) \_\_\_\_\_\_\_

#### Area/Concentration Report

	Peak #	Ret Time . [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	.RF VALUE .	DIESEL AMT. PPM	Component Name	Raw Amount	
	1	2.939	2175.38	305.30 BV	5.0000e5	0.5066	13.6813		0.0044	
_	2	3.149	3543.28	622.16 VV	5.0000e5	0.5066	13.6813		0.0071	
	3	3.435	4742.31	486.51 VV	4.9999e5	0.5066	13.6813		0.0095	
	4	3.591	10078.28	1136.24 VV	5.0000e5	0.5066	13.6813		0.0202	
	5 6	3.905	26209.25	2038.97 VV	5.0000e5	0.5066	13.6813		0.0524	
	6	4.852	3609.13	315.17 VB	5.0000e5	0.5066	13.6813		0.0072	
	7	5.861	3427.00	350.94 BB	5.0000e5	0.5066	13.6813		0.0069	
_	8	7.606 /	101313.75	3521.15 BV	1778.5000	0.5066	13.6813	2-FLUOROBIPHENYL	56.9658	
Н	8 9 10	8.472	12393.44	765.12 VV	5.0000e5	0.5066	13.6813		0.0248	
٠	10	9.089	6026.06	309.84 VV	5.0000e5	0.5066	13.6813		0.0121	
	11	9.767	961.75	119.08 VB	1778.5000	0.5066	13.6813	Total Petroleum Hydr	0.5408	•
	12	11.056	92513.00	26433.64 BB	1883.5000	0.5066	13.6813	o-Terphenyl	49.1176	
	13	12.628	2187.00	59.31 BB	5.0000e5	0.5066	13.6813		0.0044	
	13 14	12.949	887.50	149.00 BB	5.0000e5	0.5066	13.6813		0.0018	
			270067.13	36612.41		7.0923	191.5386		106.7748	

roup Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1	7.606 11.056		3521.15 BV 26433.64 BB				2-FLUOROBIPHENYL o-Terphenyl	56.9658 49.1176	
		193826.75	29954.78		1.0132	19.6381		106.0834	

eport Stored in ASCII File: l:\data\tchrom\pest\hp t\T 225.TX0

#### Chromatogram

nple Name: 9509709-06B Sample #: SC ;W Page 1 of 1 : l:\data\tchrom\pest\hp\_t\T\_\_225.raw Date: 09/25/95 22:18 leName thod : DIESELT.ins Time of Injection: 09/25/95 21:50 art Time : 0.50 min End Time : 28.25 min Low Point : -19.60 mV High Point : 1000.00 mV ale Factor: Plot Offset: -20 mV Plot Scale: 1020 mV \_12.63 12.94 13.94 19.91 -4.85 -5.86 -8.47 -9.09 -9.77 -7.61 O-TERPHENY 2-FLUOROB TOTAL Time [min]



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

DATE: 10/11/95

mg/L

## Certificate of Analysis No. H9-9509709-07

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

THOM NO. 1015 100

PROJECT NO: 1315-193

MATRIX: WATER
DATE SAMPLED: 09/19/95 08:45:00

DATE RECEIVED: 09/20/95

PROJECT: Water Analysis SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 873-MS

ANALYTICAL DATA

RESULTS DETECTION UNITS

GC/FID Diesel-Extractables 1.58 U.1

WI LUFT DRO

PARAMETER

Analyzed by: SEG

Date: 09/25/95 22:25:00

Liquid-liquid extraction

09/21/95

METHOD 3510 \*\*\*
Analyzed by: RN

Date: 09/21/95 17:00:00

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-07

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/95

PROJECT: Water Analysis

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 873-MS

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 08:45:00

DATE RECEIVED: 09/20/95

ANALYTIC	CAL DATA		
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	49	5	ug/L
Bromodichloromethane	56	5	ug/L
Bromoform	49	5	ug/L ug/L
Bromomethane	52	10	
2-Butanone	49	20	ug/L
Carbon Disulfide	48	5	ug/L
Carbon Tetrachloride	53	5	ug/L
Chlorobenzene	51	5	ug/L
Chloroethane	48		ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	52	10	ug/L
Chloromethane	52 50	5	ug/L
Dibromochloromethane	55 55	10	ug/L
1,1-Dichloroethane	55 52	5	ug/L
1,1-Dichloroethene	47	5	ug/L
1,2-Dichloroethane	55	5	ug/L
total-1,2-Dichloroethene	97	5	ug/L
1,2-Dichloropropane		5	ug/L
cis-1,3-Dichloropropene	52	5	ug/L
trans-1,3-Dichloropropene	52	5	ug/L
Ethylbenzene	54	5	ug/L
2-Hexanone	49	-5	$\mathtt{ug}/\mathtt{L}$
Methylene Chloride	25	10	${\tt ug/L}$
4-Methyl-2-Pentanone	49	5	ug/L
Styrene	36	10	ug/L
1,1,2,2-Tetrachloroethane	48	5	ug/L
Tetrachloroethene	55	5	ug/L
Toluene	46	5	ug/L
	49	5	ug/L
1,1,1-Trichloroethane	53	5	ug/L
1,1,2-Trichloroethane	55	5	ug/L
Trichloroethene	49	5	ug/L
Trichlorofluoromethane	55	5	ug/L
Vinyl Acetate	60	10	ug/L
Vinyl Chloride	50	10	ug/L
Xylenes (total)	150	5	. ug/L

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

## Certificate of Analysis No. H9-9509709-07

Operational Tech

SAMPLE ID: 873-MS

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	104	76	114
Toluene-d8	50 ug/L	100	88	110
4-Bromofluorobenzene	50 ug/L	98	86	115

ANALYZED BY: JC

DATE/TIME: 09/21/95 14:19:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

ta File: /chem/l.i/1950921.b/1264s05.d

port Date: 22-Sep-1995 08:39

#### SPL Labs

Volatiles by 624/8240

ta file : /chem/l.i/1950921.b/1264s05.d

o Smp Id: 9509709-07A Client Smp ID: B73MS

j Date : 21-SEP-1995 14:19

erator : JC Inst ID: l.i

o Info : 9509709-07A-8240W/1X sc Info : L264W1/L264B01/264CC1

: /chem/l.i/1950921.b/lvoclpw.m

th Date : 22-Sep-1995 08:25 jimmy Quant Type: ISTD

l Date : 21-SEP-1995 10:29

Cal File: 1264cc1.d

s bottle: 11 l Factor: 1.000

tegrator: HP RTE

Compound Sublist: normal.sub

rget Version: 3.10

					CONCENTRA	TIONS
	QUANT SIG				ON-COLUMN	FINAL
ounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	====	==	======	======	======	======
1 Chloromethane	50.00	1.702	1.701 (0.339)	74288	250	50
2 Vinyl Chloride	62.00	1.800	1.799 (0.359)	62469	250	50
3 Bromomethane	94.00	2.014	2.013 (0.401)	42051	260	52
4 Chloroethane	64.00	2.076	2.075 (0.414)	35430	240	48
7 Trichlorofluoromethane	101.00	2.415	2.414 (0.481)	54298	280	55
3 Acetone	58.00	2.486	2.477 (0.495)	4461	160	33
1 1,1-Dichloroethene	96.00	2.843	2.842 (0.567)	33247	240	47
3 Methylene Chloride	84.00	3.075	3.065 (0.613)	45784	240	49
3 1,2-Dichloroethene (total)	96.00			89289	490	97
4 Carbon Disulfide	76.00	3.190	3.181 (0.636)	156146	240	48
5 trans-1,2-Dichloroethene	96.00	3.636	3.626 (0.725)	37783	240	48
7 1,1-Dichloroethane	63.00	3.957	3.938 (0.789)	90237	260	52
9 Vinyl Acetate	43.00	4.046	4.036 (0.806)	128481	300	60
) 2-Butanone	43.00	4.420	4.402 (0.881)	36751	250	49
1 cis-1,2-Dichloroethene	96.00	4.759	4.741 (0.948)	51506	240	49
4 Chloroform	83.00	5.036	5.017 (1.004)	97218	260	52
7 1,1,1-Trichloroethane	97.00	5.820	5.810 (0.865)	70167	270	53
3 1,2-Dichloroethane	62.00	5.900	5.891 (1.176)	90677	280	55
) Benzene	78.00	6.266	6.256 (0.931)	200603	250	49
Carbon Tetrachloride	117.00	6.292	6.283 (0.935)	60217	260	53
1,2-Dichloropropane	63.00	7.255	7.245 (1.078)	62346	260	52
5 Trichloroethene	130.00	7.291	7.281 (1.083)	47115	240	49
7 Bromodichloromethane	83.00	7.478	7.468 (1.111)	73140	280	56
4-Methyl-2-Pentanone	43.00	8.316	8.306 (1.236)	75527	180	36
cis-1,3-Dichloropropene	75.00	8.343	8.342 (1.240)	86265	260	52
trans-1,3-Dichloropropene	75.00	8.976	8.966 (1.334)	78824	270	54
- Toluene	92.00	9.056	9.046 (0.830)	109532	240	49
1,1,2-Trichloroethane	83.00	9.145	9.135 (1.359)	42413	270	55
2-Hexanone	43.00	9.519	9.510 (0.873)	48923	120	25

Data File: /chem/l.i/1950921.b/1264s05.d Report Date: 22-Sep-1995 08:39

						CONCENTRA	ATIONS
	·	QUANT SIG				ON-COLUMN	FINAL
	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
		====	==		======	======	======
_	47 Dibromochloromethane	129.00	9.769	9.759 (1.452)	51764	270	55
	49 Tetrachloroethene	164.00	10.117	10.107 (0.927)	43410	230	46
	52 Chlorobenzene	112.00	10.954	10.954 (1.004)	117355	250	51
M	1 53 Xylene (Total)	106.00			210831	740	150
	54 Ethylbenzene	106.00	11.257	11.257 (1.032)	55203	240	49
	55 m,p-Xylene(s)	106.00	11.427	11.417 (1.047)	139591	490	97
	56 Bromoform	173.00	11.837	11.836 (1.085)	43079	240	49
	57 Styrene	104.00	11.890	11.890 (1.090)	114205	240	48
Н	59 o-Xylene	106.00	11.953	11.943 (1.096)	71240	260	51
	60 1,1,2,2-Tetrachloroethane	83.00	12.300	12.300 (1.127)	68966	280	55
*	23 Bromochloromethane	128.00	5.018	5.008 (1.000)	27317	250	
	32 1,4-Difluorobenzene	114.00	6.729	6.720 (1.000)	137566	250	
	50 Chlorobenzene-d5	117.00	10.910	10.900 (1.000)	112991	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.793	5.784 (1.155)	11456	260	52
	43 Toluene-d8	98.00	8.958	8.948 (0.821)	146985	250	50
	61 Bromofluorobenzene	95.00	12.586	12.585 (1.154)	58115	250	49

ata File: /chem/l.i/1950921.b/l264s05.d

eport Date: 22-Sep-1995 08:39

### Page 3

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

istrument ID: 1.i

ab File ID: 1264s05.d

ab Smp Id: 9509709-07A nalysis Type: VOA

lant Type: ISTD

perator: JC

ethod File: /chem/l.i/1950921.b/lvoclpw.m

sc Info: L264W1/L264B01/264CC1

Calibration Date: 09/21/95 Calibration Time: 1029 Client Smp ID: B73MS

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	34580	17290	69160	27317	-21.00
32 1,4-Difluorobenzene	181594	90797	363188	137566	-24.25
50 Chlorobenzene-d5	146649	73324	293298	112991	-22.95

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
23 Bromochloromethane	5.01	4.51	5.51	5.02	0.19
32 1,4-Difluorobenzene	6.72	6.22	7.22	6.73	0.14
50 Chlorobenzene-d5	10.90	10.40	11.40	10.91	0.09

REA UPPER LIMIT = +100% of internal standard area.
REA LOWER LIMIT = - 50% of internal standard area.

UPPER LIMIT = + 0.50 minutes of internal standard RT. LOWER LIMIT = - 0.50 minutes of internal standard RT. Page 5

Instrument: 1.i

Software Version: 3.2 <16C20>

Sample Name : 9509709-07BMS

Sample Number: KM ;W

: 09/25/95 22:53 Time

Study : DROW

: SEG Operator

Instrument : HP\_T AutoSampler : HP 7673A

Channel : A A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 09/25/95 22:25

Delay Time : 0.50 min. : 28.25 min. End Time Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_226.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_226.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Area Reject : 100.00 : 1 ul Inj. Volume Sample Amount : 1.0000 Dilution Factor : 1.00

#### Area/Concentration Report

				ALCEY CONCCIN	nation hoport				'
Peak	Ret Time	Area	Height BL	Area/	RF VALUE	DIESEL AMT.	Component		
#	[min]	[uV-sec]	[uV]	Amount		PPM	Name		1
					· · · · · · · · · · · · · · · · · · ·				
1	2.833	25148.63	2448.41 BV	5.0000e5	0.5066	398.9757		0.0505	
2	3.208	9592.97	1081.44 VV	5.0000e5	0.5066	398.9757		0.0192	
3	3.329	32390.22	4665.79 VV		0.5066	398.9757		0.0648	
4	3.485	13059.53	2454.97 VV		0.5066	398.9757		0.0261	
5	3.600	19186.86	3598.63 VV		0.5066			0.0384	
6	3.695	22268.83	4188.06 VV		0.5066			0.0445	
7	3.824	17034.34	3298.66 VV		0.5066			0.0341	
8	3.962	57769.13	6922.91 VV		0.5066			0.1155	1
9	4.119	28772.72	4391.03 VV		0.5066			0.0576	
	4.340	43938.97	5298.03 VV		0.5066			0.0879	i
10		38767.45	5972.97 VV		0.5066			0.0775	
11	4.470				0.5066			0.0787	
12	4.581	39329.06	6975.84 VV		0.5066			0.0429	•
13	4.674	21465.05	5744.43 VV					0.0784	
14	4.758	39220.03	7304.14 VV		0.5066			0.0897	
15	4.851	44851.17	7925.58 VV		0.5066			0.0798	
16	4.948	39886.81	8864.19 VV		0.5066		•		
17	5.014	33321.02	7505.73 VV		0.5066			0.0666	
18	5.200	69720.91	7178.60 VV		0.5066			0.1394	
19	5.382	89382.00	11205.49 VV	5.0000e5	0.5066			0.1788	
20	5.480	97016.84	13736.39 VV		0.5066	398.9757		0.1940	
21	5.701	144992.41	17988.21 VV	4.9999e5	0.5066	398.9757		0.2900	
22	5.830	84089.64	15848.64 VV	4.9999e5	0.5066	398.9757		0.1682	
23	5.933	38478.34	8367.50 VV	5.0000e5	0.5066	398.9757		0.0770	1
24	6.033	64293.55	15830.05 VV	5.0000e5	0.5066	398.9757		0.1286	
25	6.106	55108.31	14167.15 VV		0.5066	398.9757		0.1102	
26	6.168	85871.42	17406.54 VV	5.0000e5	0.5066	398.9757		0.1717	l
27	6.267		14393.35 VV		0.5066		•	0.1668	
28	6.403	58290.88	13082.87 VV		0.5066	398.9757		0.1166	
29	6.485		35958.67 VV		0.5066	398.9757		0.6022	
30	6.791	192021.41			0.5066			0.3840	
31	6.914		40995.41 VV		0.5066			0.4769	
32	7.058		24405.53 VV		0.5066			0.2192	
33	7.115		32196.70 VV		0.5066			0.2264	
34	7.201		29480.75 VV		0.5066			0.4605	
35	7.385		17628.47 VV		0.5066			0.1557	
36	7.476	226122 07	35111.63 VV	5.0000e5	0.5066			0.4523	
37	7.678		37236.34 VV		0.5066			0.7309	
38	7.842		63913.66 VV		0.5066		2-FLUOROBIPHENYL	223.1269	
					0.5066		Z TEOOROOTF HERTE	0.1915	
39	7.977		24607.11 VV		0.5066			0.4259	
40	8.053		32677.46 VV					0.2475	
41	8.168		24165.06 VV		0.5066				
42	8.365		35521.55 VV		0.5066			0.6157	
43	8.511	368536.22	42037.95 VV		0.5066			0.7371	
44	8.682	218932.70	36309.92 VV		0.5066			0.4379	
45	8.808	200392.84	25368.14 VV		0.5066			0.4008	
46	9.033	364109.28	36887.80 VV		0.5066			0.7282	
47	9.173	114311.33						0.2286	
48	9.295	237255.31	32073.23 V					0.4745	
49	9.423	127232.69	20600.58 VV	5.0000e5	0.5066	398.9757		0.2545	

		7875712.50	1.14e6		33 9415	26731.3906		450 7700	
67	13.167	973.00	150.10 BB	5.0000e5	0.5066	398.9757		0.0020	
66	12.587	6559.69	867.02 VB	5.0000e5	0.5066	398.9757		0.0131	
65	12.214	27856.75	1902.75 VV	5.0000e5	0.5066	398.9757		0.0557	
64	11.850	79906.13	5075.54 VV	4.9999e5	0.5066	398.9757		0.1598	
63	11.714	31372.75	4886.81 VV	5.0000e5	0.5066	398.9757		0.0628	
62	11.578	40649.53	5416.83 VV	5.0000e5	0.5066	398.9757		0.0813	
61	11.339	107207.38	8769.66 VV	1883.5000	0.5066		o-Terphenyl	56.9192	
60	11.162	126813.25	13382.71 VV	5.0000e5	0.5066	398.9757		0.2536	
59	11.050	75231.41	17631.13 VV	5.0000e5	0.5066	398.9757		0.1505	
58	10.915	65702.08	10502.56 VV	4.9999e5	0.5066	398.9757		0.1314	-
57	10.785	67643.09	10457.62 VV	5.0000e5	0.5066	398.9757		0.1353	
56	10.570	204336.28	18575.37 VV	5.0000e5	0.5066	398.9757		0.4087	
55	10.467	146556.69	15350.52 VV	5.0000e5	0.5066	398.9757		0.2931	
54	10.276	58452.56	12783.16 VV	5.0000e5	0.5066	398.9757		0.1169	
53	10.117	198201.59	21216.43 VV	5.0000e5	0.5066	398.9757		0.3964	
52	9.914	278401.59	27958.64 VV	1778.5000	0.5066		Total Petroleum Hydr	156.5373	
51 52	9.786	81011.05	16743.54 VV	4.9999e5	0.5066			0.1620	
50	9.595	260220.31	26351.79 VV	5.0000e5	0.5066	398.9757		0.5204	

Group Report For : SURROGATES

ea #	k Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	7.842 11.339		63913.66 BV 8769.66 VV				2-FLUOROBIPHENYL o-Terphenyl	223.1269 56.9192	
		504038.53	72683.32		1.0132	51.0682		280.0461	

END

eport Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_226.TX0

#### Chromatogram

Sample Name: 9509709-07BMS

: l:\data\tchrom\pest\hp\_t\T\_\_226.raw FileName

: DIESELT.ins

Start Time : 0.50 min

Scale Factor: 1

End Time : 28.25 min

Plot Offset: -18 mV

Sample #: KM ;W

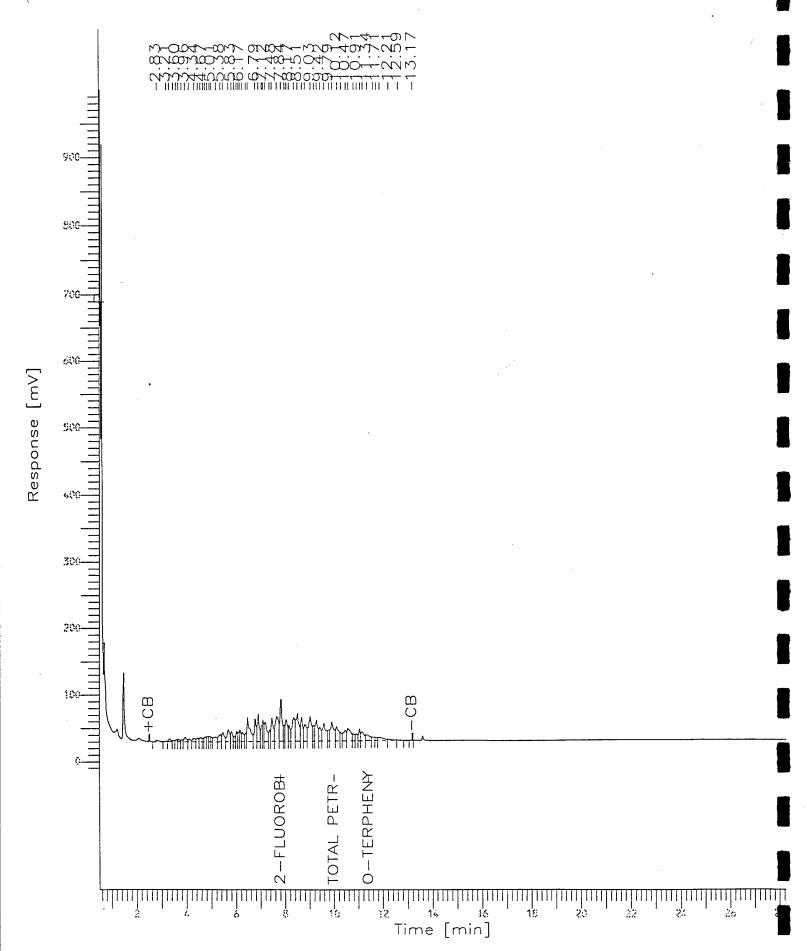
Date: 09/25/95 22:53

Time of Injection: 09/25/95 22:25

High Point: 1000.00 mV

Page 1 of 1

Low Point : -17.96 mV Plot Scale: 1018 mV





8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

### Certificate of Analysis No. H9-9509709-08

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

PROJECT NO: 1315-193

PROJECT: Water Analysis

**SITE:** Minneapolis, MN

MATRIX: WATER

DATE SAMPLED: 09/19/95 08:45:00

DATE: 10/11/95

SAMPLE ID: 873-MSD

DATE RECEIVED: 09/20/95

ANALYTICAL DATA

PARAMETER

SAMPLED BY: Operational Technology

DETECTION

UNITS

GC/FID Diesel-Extractables

1.76

RESULTS

LIMIT 0.1

mg/L

WI LUFT DRO

Analyzed by: SEG

Date: 09/25/95 23:00:00

Liquid-liquid extraction

09/21/95

METHOD 3510 \*\*\* Analyzed by: RN

Date: 09/21/95 17:00:00

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-08

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/9

PROJECT: Water Analysis

**SITE:** Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 873-MSD

**PROJECT NO:** 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 08:45:0

DATE RECEIVED: 09/20/95

ANALYT	ICAL DATA		
PARAMETER	RESULTS	PQL*	UNIT
Acetone	ND	100	ug/:
Benzene	50	5	ug/:
Bromodichloromethane	56	5	ug/
Bromoform	50	5	ug/
Bromomethane	50	10	ug/
2-Butanone	43	20	ug/
Carbon Disulfide	46	5	ug/
Carbon Tetrachloride	54	5	ug/
Chlorobenzene	52	5	ug/
Chloroethane	47	10	ug/
2-Chloroethylvinylether	ND	10	ug/
Chloroform	52	5	ug/
Chloromethane	48	10	ug/
Dibromochloromethane	56	5	ug/
1,1-Dichloroethane	51	5	ug/
1,1-Dichloroethene	46	5	ug/
1,2-Dichloroethane	54	5	ug/
total-1,2-Dichloroethene	94	5	ug/
1,2-Dichloropropane	53	5	ug/
cis-1,3-Dichloropropene	53	5	ug/
trans-1,3-Dichloropropene	54	5	ug/
Ethylbenzene	50	5	ug/
2-Hexanone	24	10	
Methylene Chloride	48	5	ug/:
4-Methyl-2-Pentanone	36	10	ug/
Styrene	49	5	ug/:
1,1,2,2-Tetrachloroethane	55	5	ug/] ug/]
Tetrachloroethene	46	5	ug/: ug/:
Toluene	50	5	ug/l ug/l
1,1,1-Trichloroethane	54	5	ug/1
1,1,2-Trichloroethane	56	5	
Trichloroethene	49	5	ug/1
Trichlorofluoromethane	54	5	ug/1
Vinyl Acetate	57	10	ug/1
Vinyl Chloride	47	10	ug/I
Xylenes (total)	150	5	ug/I
-	100	ວ	ug/I

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-08

Operational Tech

SAMPLE ID: 873-MSD

SURROGATES	AMOUNT	%	LOWER	UPPER
	SPIKED	RECOVERY	LIMIT	LIMIT
1,2-Dichloroethane-d4	50 ug/L	102	76	114
Toluene-d8	50 ug/L	100	88	110
4-Bromofluorobenzene	50 ug/L	93	86	115

ANALYZED BY: JC DATE/TIME: 09/21/95 14:44:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Data File: /chem/l.i/1950921.b/l264s06.d

Report Date: 22-Sep-1995 08:39

#### SPL Labs

Volatiles by 624/8240

Data file : /ch.m/l.i/1950921.b/l264s06.d

Lab Smp Id: 9509709-08A

Client Smp ID: B73MSD

Inj Date : 21-SEP-1995 14:44

Operator : JC

Inst ID: l.i

Smp Info : 9509709-08A-8240W/1X
Misc Info : L264W1/L264B01/264CC1

Comment :

Method : /chem/l.i/1950921.b/lvoclpw.m

Meth Date : 22-Sep-1995 08:25 jimmy Quant Type: ISTD Cal Date : 21-SEP-1995 10:29 Cal File: 1264cc1.d

Als bottle: 12 Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					CONCENTRA	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	====	==				
1 Chloromethane	50.00	1.705	1.701 (0.340)	72305	240	48
2 Vinyl Chloride	62.00	1.803	1.799 (0.359)	60133	240	47
3 Bromomethane	94.00	2.017	2.013 (0.402)	41445	250	50
4 Chloroethane	64.00	2.079	2.075 (0.414)	35617	240	47
7 Trichlorofluoromethane	101.00	2.418	2.414 (0.482)	54173	270	54
8 Acetone	58.00	2.480	2.477 (0.494)	4061	150	29
11 1,1-Dichloroethene	96.00	2.846	2.842 (0.567)	33062	230	46
13 Methylene Chloride	84.00	3.078	3.065 (0.613)	45974	240	48
M 18 1,2-Dichloroethene (total)	96.00			88439	470	94
14 Carbon Disulfide	76.00	3.185	3.181 (0.634)	153281	230	46
15 trans-1,2-Dichloroethene	96.00	3.639	3.626 (0.725)	37428	230	47
17 1,1-Dichloroethane	63.00	3.960	3.938 (0.789)	91041	260	51
19 Vinyl Acetate	43.00	4.049	4.036 (0.806)	124780	280	57
20 2-Butanone	43.00	4.424	4.402 (0.881)	33018	220	43
21 cis-1,2-Dichloroethene	96.00	4.754	4.741 (0.947)	51011	240	47
24 Chloroform	83.00	5.039	5.017 (1.004)	98828	260	52
27 1,1,1-Trichloroethane	97.00	5.823	5.810 (0.865)	70035	270	54
28 1,2-Dichloroethane	62.00	5.903	5.891 (1.176)	90964	270	54
30 Benzene	78.00	6.269	6.256 (0.931)	200396	250	50
31 Carbon Tetrachloride	117.00	6.296	6.283 (0.935)	59905	270	54
34 1,2-Dichloropropane	63.00	7.258	7.245 (1.078)	62200	270	53
35 Trichloroethene	130.00	7.285	7.281 (1.082)	46700	250	49
37 Bromodichloromethane	83.00	7.481	7.468 (1.111)	72471	280	56
40 4-Methyl-2-Pentanone	43.00	8.319	8.306 (1.236)	74141	180	36
41 cis-1,3-Dichloropropene	75.00	8.346	8.342 (1.240)	84984	260	53
42 trans-1,3-Dichloropropene	75.00	8.979	8.966 (1.334)	76912	270	54
44 Toluene	92.00	9.059	9.046 (0.830)	109279	250	50
45 1,1,2-Trichloroethane	83.00	9.139	9.135 (1.357)	42302	280	56
46 2-Hexanone	43.00	9.522	9.510 (0.873)	46238	120	24

ata File: /chem/l.i/1950921.b/l264s06.d Report Date: 22-Sep-1995 08:39

						CONCENTR	ATIONS
		QUANT SIG				ON-COLUMN	FINAL
mpc	ounds	MASS	RT	EXP RT REL	RT RESPONSE	( ng)	( ug/L)
		====	==	=======================================	=== ======	======	=======
47	7 Dibromochloromethane	129.00	9.763	9.759 (1.4	<b>4</b> 50) 51604	280	56
49	P Tetrachloroethene	164.00	10.111	10.107 (0.5	926) 42636	230	46
. 52	2 Chlorobenzene	112.00	10.958	10.954 (1.0	004) 117783	260	52
M 53	3 Xylene (Total)	106.00			207347	740	150
54	Ethylbenzene	106.00	11.261	11.257 (1.0	032) 54845	250	50
55	m,p-Xylene(s)	106.00	11.430	11.417 (1.0	047) 137356	490	98
56	Bromoform	173.00	11.840	11.836 (1.0	085) 42944	250	50
57	Styrene	104.00	11.894	11.890 (1.0	090) 113023	240	49
59	o-Xylene	106.00	11.947	11.943 (1.0	095) 69991	260	51
60	1,1,2,2-Tetrachloroethane	83.00	12.304	12.300 (1.1	127) 67597	280	55
<b>*</b> 23	Bromochloromethane	128.00	5.021	5.008 (1.0	000) 27933	250	
32	1,4-Difluorobenzene	114.00	6.732	6.720 (1.0	000) 134628	250	
50	Chlorobenzene-d5	117.00	10.913	10.900 (1.0	000) 110801	250	
\$ 26	1,2-Dichloroethane-d4	102.00	5.796	5.784 (1.1	154) 11427	260	51
\$ 43	Toluene-d8	98.00	8.961	8.948 (0.8	321) 143635	250	50
61	Bromofluorobenzene	95.00	12.589	12.585 (1.1	154) 56830	240	49

Page 3

Data File: /chem/l.i/1950921.b/l264s06.d

Report Date: 22-Sep-1995 08:39

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1264s06.d Lab Smp Id: 9509709-08A

Analysis Type: VOA Quant Type: ISTD

Operator: JC Method File: /chem/l.i/1950921.b/lvoclpw.m

Misc Info: L264W1/L264B01/264CC1

Calibration Date: 09/21/95

Calibration Time: 1029 Client Smp ID: B73MSD

Level: LOW

Sample Type: WATER

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
		=======	=======	=======	======
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	34580 181594 146649	17290 90797 73324		2.555	

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
23 Bromochloromethane	5.01	4.51	5.51	5.02	0.26
32 1,4-Difluorobenzene	6.72	6.22	7.22	6.73	0.19
50 Chlorobenzene-d5	10.90	10.40	11.40	10.91	0.12

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Page 5

Instrument: 1.i

Software Version: 3.2 <16C20>

Sample Name : 9509709-08BMSD

: 09/25/95 23:28 Time Study : DROW

Sample Number: KMD; W

Operator : SEG

A/D mV Range : 1000 Channel : A

Instrument : HP\_T AutoSampler : HP\_7673A : 0/0 Rack/Vial

Interface Serial #: 4118271220 Data Acquisition Time: 09/25/95 23:00

: 0.50 min. : 28.25 min. Delay Time End Time Sampling Rate: 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_227.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_227.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00

\_\_\_\_\_\_

#### Area/Concentration Report

					Area/Concent	ration Report				
Peak	Ret Time	Area	Height	BL	Area/	RF VALUE	DIESEL AMT.	Component	Raw	
#	[min]	[uV-sec]	[uV]		Amount		PPM	Name	Amount	
1	2.827	20831.94	2634.43		5.0000e5	0.5066	441.2613		0.0417	
2	3.004	7856.23	1263.03	W	5.0000e5	0.5066	441.2613		0.0157	
3	3.140	7624.63	922.41		5.0000e5	0.5066	441.2613		0.0153	
4	3.331	22659.06	3421.62		4.9999e5	0.5066	441.2613	,	0.0453	
5	3.490	14059.92	2354.17		5.0000e5	0.5066	441.2613		0.0281	
6	3.597	18690.91	3574.64		5.0000e5	0.5066	441.2613		0.0374	
7	3.694	15916.88	2992.60	W	5.0000e5	0.5066	441.2613		0.0318	
8	3.825	10272.66	2378.31		5.0000e5	0.5066	441.2613		0.0206	
9	3.958	62545.09	7127.76		5.0000e5	0.5066	441.2613		0.1251	
10	4.120	22751.67	3781.89	W	5.0000e5	0.5066	441.2613		0.0455	
11	4.340	33810.94	4013.10	W	5.0000e5	0.5066	441.2613		0.0676	
12	4.471	32835.41	5166.21		5.0000e5	0.5066	441.2613		0.0657	
13	4.579	34976.16	6133.21		5.0000e5	0.5066	441.2613		0.0700	
14	4.678	22284.56	4806.76		5.0000e5	0.5066	441.2613		0.0446	
15	4.757	32507.52	5913.91	V۷	5.0000e5	0.5066	441.2613		0.0650	
16	4.947	125674.13	9544.24	W	5.0000e5	0.5066	441.2613		0.2514	
17	5.200	45112.88	6239.30		5.0000e5	0.5066	441.2613		0.0902	
18	5.388	82741.16	10351.14	W	5.0000e5	0.5066	441.2613		0.1655	
19	5.479	97802.69	12931.82		4.9999e5	0.5066	441.2613		0.1956	
20	5.716	135997.53	17847.85		5.0000e5	0.5066	441.2613		0.2720	
21	5.831	85735.78	16104.29		5.0000e5	0.5066	441.2613		0.1715	
22	5.932	30717.60	8164.98		5.0000e5	0.5066	441.2613		0.0614	
23	6.034	66952.94	14515.07		5.0000e5	0.5066	441.2613		0.1339	
24	6.169	125892.97	16553.86		5.0000e5	0.5066	441.2613		0.2518	
25	6.266	109975.44	15118.53		5.0000e5	0.5066	441.2613		0.2200	•
26	6.403	45720.84	12239.47		5.0000e5	0.5066	441.2613		0.0914	
27	6.486	317624.84	38128.65		5.0000e5	0.5066	441.2613		0.6353	
28	6.794	197865.06	33256.71		4.9999e5	0.5066	441.2613		0.3957	
29	6.914	241132.56	40123.47		5.0000e5	0.5066	441.2613		0.4823	
30	7.058	110990.89	24750.20		5.0000e5	0.5066	441.2613		0.2220	
. 31	7.116	114781.14	31283.36		5.0000e5	0.5066	441.2613		0.2296	
32	7.188	268463.69	35809.38		4.9999e5	0.5066	441.2613		0.5369	
33	7.386	84923.33	18814.16		5.0000e5	0.5066	441.2613		0.1699	
34	7.477	249855.25	37625.72		5.0000e5	0.5066	441.2613		0.4997	
35	7.679	384000.16	37490.18		5.0000e5	0.5066	441.2613		0.7680	
36	7.839	444632.91	74144.88		1778.5000	0.5066		2-FLUOROBIPHENYL	250.0044	
37	8.054	358021.00	40009.46		5.0000e5	0.5066			0.7160	
38	8.170	123464.55	27816.44		5.0000e5	0.5066			0.2469	
39	8.367	350664.63	46216.65		5.0000e5	0.5066			0.7013 0.4291	
40	8.446	214549.28	47649.09		4.9999e5	0.5066			0.4291	
41	8.510	270543.44	46899.62		5.0000e5	0.5066			0.5411	
42	8.683	253484.44	41429.84		5.0000e5	0.5066			0.5070	
43	8.806	237303.91	29567.30		5.0000e5	0.5066			0.4746	
44	9.030	475987.84	53384.82		5.0000e5	0.5066			0.9520	
45	9.171	136721.83	28484.15		4.9999e5	0.5066			0.2734	
46	9.295	278530.72	36166.28		5.0000e5	0.5066			0.5571	
47	9.429	158283.00	25729.96		5.0000e5	0.5066			0.3166	
48	9.590		39019.01		5.0000e5	0.5066			0.6895	
49	9.784	100644.00	20808.22	VV	5.0000e5	0.5066	441.2613		0.2013	

54 55	10.118 10.278 10.465 10.624 10.786 10.913 11.050	255647.03 71908.80 177677.38 246380.00 78477.47 65401.17 93951.28	30139.56 VV 15553.31 VV 18266.18 VV 21612.63 VV 12267.84 VV 12140.77 VV 19544.67 VV	5.0000e5 5.0000e5 5.0000e5 5.0000e5 4.9999e5 4.9999e5	0.5066 0.5066 0.5066 0.5066 0.5066	441.2613 441.2613 441.2613 441.2613 441.2613		0.1438 0.3554 0.4928 0.1570 0.1308 0.1879 0.2792	<u>.</u>
58 59 62 63	11.124 11.337 11.582 11.712 11.848 13.168	139578.31 107790.38 43163.50 22520.05 48769.50 368.00	15027.70 VV 9044.05 VV 5455.60 VV 4400.13 VV 4366.94 VB 88.06 BB	5.0000e5 1883.5000 5.0000e5 5.0000e5 5.0000e5 5.0000e5	0.5066 0.5066 0.5066 0.5066 0.5066 0.5066	441.2613 441.2613 441.2613 441.2613 441.2613 441.2613	o-Terphenyl	57.2288 0.0863 0.0450 0.0975 0.0007	
		8710422.00	1.25e6		31.9152	27799.4785		508.2226	

Group Report For : SURROGATES

-	k Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
	7.839 11.337	444632.91 107790.38	74144.88 BV 9044.05 VV			<b></b>	2-FLUOROBIPHENYL o-Terphenyl	250.0044 57.2288	
4		552423.25	83188.92		1,0132	55.9704		307.2332	

Report Stored in ASCII File: L:\data\tchrom\pest\hp\_t\T\_\_227.TX0

871.04 (0.500) 871.04 (1.76)

Sample Name: 9509709-08BMSD

: l:\data\tchrom\pest\hp\_t\T\_\_\_227.raw

FileName

Start Time : 0.50 min

: DIESELT.ins

End Time : 28.25 min Plot Offset: -19 mV

Sample #: KMD;W

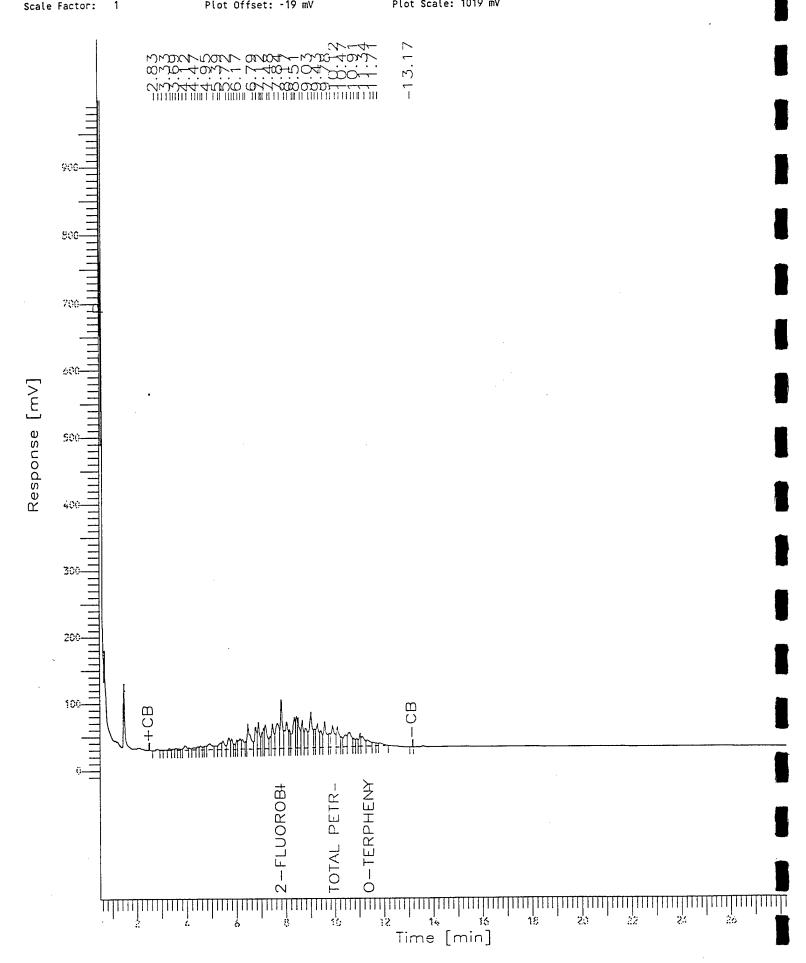
Date: 09/25/95 23:28

Time of Injection: 09/25/95 23:00

High Point : 1000.00 mV Low Point : -18.62 mV

Page 1 of 1

Plot Scale: 1019 mV





8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

DATE: 10/11/95

# Certificate of Analysis No. H9-9509709-09

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

•

PROJECT: Water Analysis

SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 801-Field Blank

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 10:00:00

DATE RECEIVED: 09/20/95

ANALYTICAL DATA

PARAMETER RESULTS DETECTION UNIT

GC/FID Diesel-Extractables

LIMIT ND 0.1 mg/

WI LUFT DRO

Analyzed by: SEG

Date: 09/25/95 23:34:00

Liquid-liquid extraction

09/21/95

METHOD 3510 \*\*\*
Analyzed by: RN

Date: 09/21/95 17:00:00

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed

\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-09

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/9

PROJECT: Water Analysis SITE: Minneapolis, MN

SAMPLED BY: Operational Technology

SAMPLE ID: 801-Field Blank

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/19/95 10:00:d

DATE RECEIVED: 09/20/95

ANALYTI	CAL DATA		
PARAMETER	RESULTS	PQL*	UNIT
Acetone	ND	100	ug/
Benzene	ND	5	ug/
Bromodichloromethane	ND	5	ug/
Bromoform	ND	5	ug/
Bromomethane	ND	10	ug/
2-Butanone	ND	20	ug/
Carbon Disulfide	ND	5	ug/
Carbon Tetrachloride	ND	5	ug/
Chlorobenzene	ND	5	ug/
Chloroethane	ND	10	ug/
2-Chloroethylvinylether	ND	10	ug/
Chloroform	ND	5	ug/
Chloromethane	ND	10	ug/
Dibromochloromethane	ND	5	ug/
1,1-Dichloroethane	ND	5	ug/
1,1-Dichloroethene	ND	5	ug/
1,2-Dichloroethane	ND	5	ug/
total-1,2-Dichloroethene	ND	5	ug/
1,2-Dichloropropane	ND	5	ug/
cis-1,3-Dichloropropene	ND	5	ug/
trans-1,3-Dichloropropene	ND	5	ug/
Ethylbenzene	ND	5	ug/
2-Hexanone	ND	10	ug/
Methylene Chloride	ND	5	ug/
4-Methyl-2-Pentanone	ND	10	ug/
Styrene	ND	5	ug/
1,1,2,2-Tetrachloroethane	ND	5	ug/
Tetrachloroethene	ND	5	ug/:
Toluene	ND	5	ug/
1,1,1-Trichloroethane	ND	5	ug/
1,1,2-Trichloroethane	ND	5	ug/
Trichloroethene	ND	5	ug/
Trichlorofluoromethane	ND	5	ug/
Vinyl Acetate	ND	10	ug/
Vinyl Chloride	ND	10	ug/1
Xylenes (total)	ND	5	ug/I

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509709-09

Operational Tech

SAMPLE ID: 801-Field Blank

SURROGATES	AMOUNT	<b>%</b>	LOWER	UPPER
1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene	<b>SPIKED</b> 50 ug/L 50 ug/L 50 ug/L	RECOVERY 100 100 92	<b>LIMIT</b> 76 88 86	LIMIT 114 110 115

ANALYZED BY: JC DATE/TIME: 09/21/95 17:18:00

METHOD: 8240, Volatile Organics - Water

\* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Data File: /chem/l.i/1950921.b/l264s12.d

Report Date: 22-Sep-1995 07:16

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950921.b/1264s12.d

Lab Smp Id: 9509709-09A Client Smp ID: B01-FIELD BLANK

Inj Date : 21-SEP-1995 17:18

Inst ID: 1.i Operator : JC

Smp Info : 9509709-09A-8240W/1X Misc Info : L264W1/L264B01/264CC1

Comment

Method : /chem/l.i/l950921.b/lvoclpw.m Meth Date : 21-Sep-1995 10:52 jimmy (Cal Date : 21-SEP-1995 10:29 Quant Type: ISTD Cal File: 1264cc1.d

Als bottle: 18

Dil Factor: 1.000 Integrator: HP RTE

Compound Sublist: normal.sub

Page 1

Target Version: 3.10

						CONCENTRA	ATIONS
	QUANT SIG					ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ug/L)
********	====	**	*****	*****	=======		
* 23 Bromochloromethane	128.00	5.026	5.008	(1.000)	26027	250	
* 32 1.4-Difluorobenzene	114.00	6.729	6.720	(1.000)	120452	250	
* 50 Chlorobenzene-d5	117.00	10.910	10.900	(1.000)	100811	250	
\$ 26 1,2-Dichloroethane-d4	102.00	5.793	5.784	(1.153)	10481	250	50
\$ 43 Toluene-d8	98.00	8.957	8.948	(0.821)	131898	250	50
\$ 61 Bromofluorobenzene	95.00	12.585	12.585	(1.154)	48967	230	46

Data File: /chem/l.i/1950921.b/l264s12.d

Report Date: 22-Sep-1995 07:16

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: l.i Lab File ID: 1264s12.d Lab Smp Id: 9509709-09A Analysis Type: VOA

Quant Type: ISTD

Operator: JC
Method File: /chem/l.i/1950921.b/lvoclpw.m
Misc Info: L264W1/L264B01/264CC1

Calibration Date: 09/21/95 Calibration Time: 1029

Client Smp ID: B01-FIELD BLANK

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	34580 181594 146649	90797	0,100	26027 120452 100811	-24.73 -33.67 -31.26

COMPOUND  23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	STANDARD ===================================	LOWER 4.51 6.22 10.40	LIMIT UPPER ======== 5.51 7.22 11.40	SAMPLE ======= 5.03 6.73 10.91	% DIFF ====== 0.37 0.14 0.09
--	---	--------------------------------	---	--	--

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

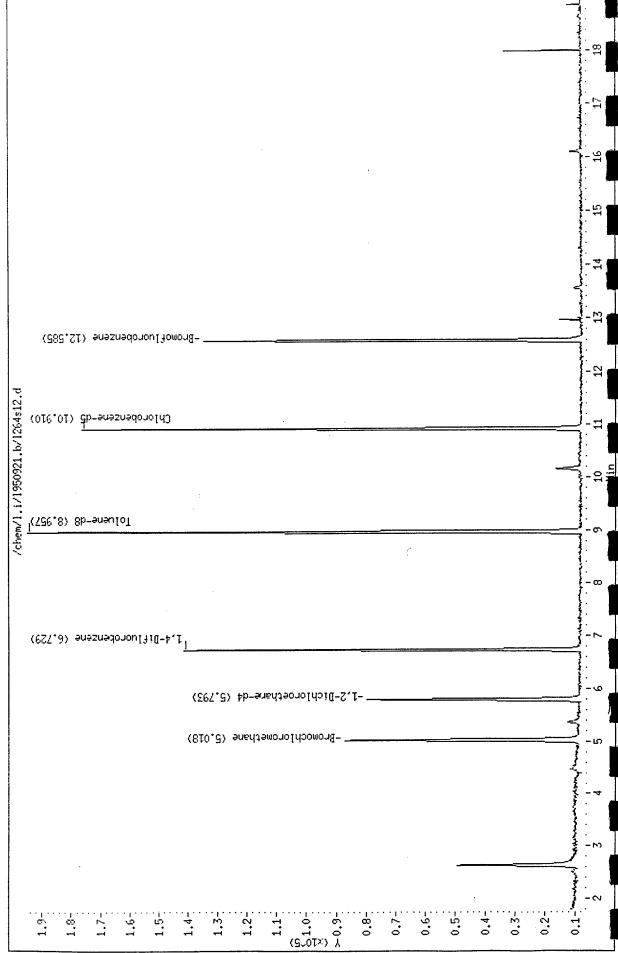
T UPPER LIMIT = + 0.50 minutes of internal standard RT. T LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/1.i/1950921.b/1264s12.d

Date : 21-SEP-1995 17:18 Client ID: BO1-FIELD RLAWK Sample Info: 9509709-09A-8240U/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

0.25 Operator: JC Column diameter:



ftware Version: 3.2 <16C2O>

mple Name : 9509709-09B

mple Number: SC ;W

: 09/26/95 12:03 : DROU Time

Study

Operator : SEG

strument : HP\_T toSampler : HP\_7673A

Channel: A A/D mV Range: 1000

Rack/Vial : 0/0

terface Serial # : 4118271220 Data Acquisition Time: 09/25/95 23:34

lay Time : 0.50 min. nd Time : 28.25 min. End Time Sampling Rate : 1.0000 pts/sec

w Data File : l:\data\tchrom\pest\hp\_t\T\_\_228.raw sult File : l:\data\tchrom\pest\hp\_t\T\_\_228.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc mple File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp quence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul imple Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

\_\_\_\_\_\_\_

#### Area/Concentration Report

Peak	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 2 3	2.930 3.148 3.422	2555.19 4260.59 6599.72	347.53 BV 779.90 VV 726.95 VV	5.0000e5 5.0000e5 5.0000e5	0.5066 0.5066 0.5066	20.3117 20.3117		0.0051 0.0085 0.0132	
5 6 7	3.600 3.941 4.107 4.548	8851.00 7045.28 6743.25 3058.63	653.66 VV 704.98 VV 413.21 VV 250.99 VV	5.0000e5 5.0000e5 5.0000e5 5.0000e5	0.5066 0.5066 0.5066 0.5066	20.3117 20.3117		0.0177 0.0141 0.0135 0.0061	
8 9 10	4.877 5.113 5.559	809.69 210.55 45394.00	91.54 VV 49.30 VB 960.99 BE	5.0000e5 5.0000e5 5.0000e5	0.5066 0.5066 0.5066	20.3117 20.3117 20.3117		0.0016 0.0004 0.0908 0.0019	
11 12 13 14 15	6.600 7.585 / 8.162 8.319	968.00 76589.88 9251.56 10560.13	106.88 EB 3689.76 BV 1037.91 VV 783.97 VV	5.0000e5 1778.5001 4.9999e5 5.0000e5	0.5066 0.5066 0.5066 0.5066	20.3117	2-FLUOROBIPHENYL	43.0643 0.0185 0.0211	
15 16 17 18	8.894 9.066 9.766	5226.50 6430.50 1136.81	561.77 VV 438.86 VV 155.08 VV	5.0000e5 5.0000e5 5.0000e5	0.5066 0.5066 0.5066	20.3117	Total Petroleum Hydr	0.0105 0.0129 0.0023 1.6543	
19 20 21	10.014 10.288 10.457 10.619	2942.19 788.00 237.44 1047.06	410.77 VB 188.40 BB 62.39 BV 263.47 VB	1778.5000 5.0000e5 5.0000e5 5.0000e5	0.5066 0.5066 0.5066	20.3117	Total recrotedin nyo	0.0016 0.0005 0.0021	
22 23 24	10.888 11.055 11.168	94698.77	8587.47 BV 29491.68 VV 12678.36 VB	5.0000e5 5.0000e5 1883.5000	0.5066 0.5066 0.5066	20.3117	o-Terphenyl	0.0552 0.1894 41.3963	
		400948.97	63435.81		12.1582	487.4802		86.6018	

Group Report For : SURROGATES

_	eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
	1	7.585 11.168	76589.88 77969.88	3689.76 BV 12678.36 VB	1778.5001 1883.5000	0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	43.0643 41.3963	
			154559.75	16368.12		1.0132	15.6597		84.4606	

eport Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_228.TX0

Chromatogram

Sample Name: 9509709-09B

: l:\data\tchrom\pest\hp\_t\T\_\_\_228.raw FileName

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor:

End Time : 28.25 min Plot Offset: -19 mV

Sample #: SC ;W

Date: 09/26/95 12:03

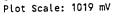
Time of Injection: 09/25/95 23:34

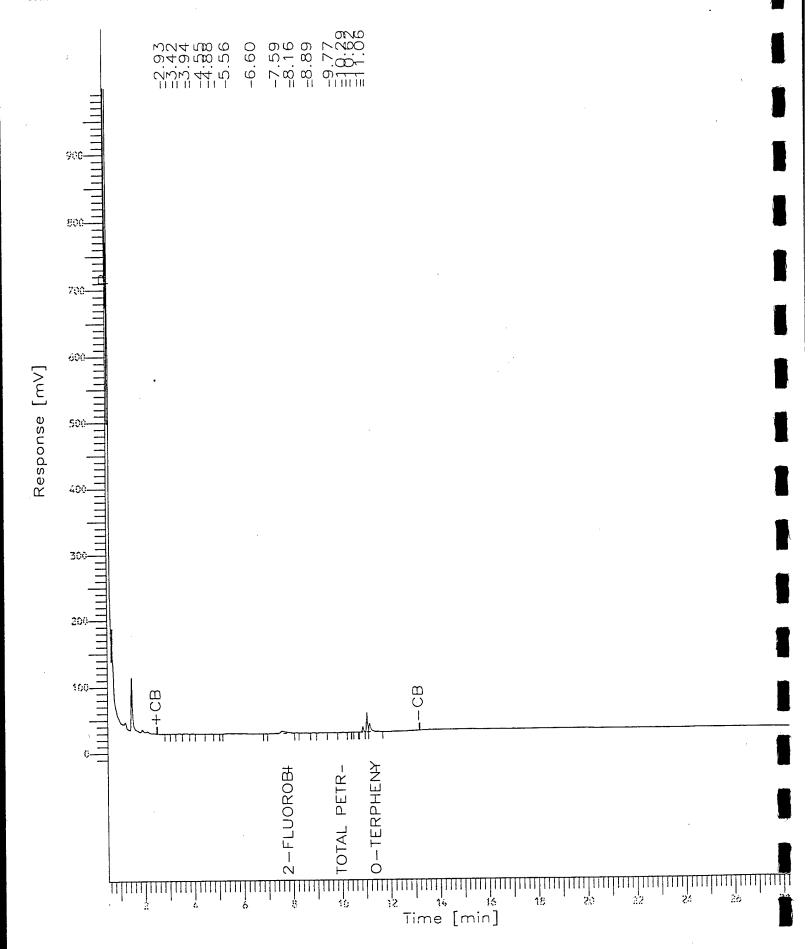
Low Point : -19.25 mV

High Point : 1000.00 mV

Page 1 of 1







QUALITY CONTROL

DOCUMENTATION

#### 3A WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9509709 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: B73-D01MW

COMPOUND   (ug/L)	(ug/L)	CONCENTRATION (ug/L)	% REC #	LIMITS REC.
1,1-Dichloroethene 50 Trichloroethene 50 Benzene 50 Toluene 50 Chlorobenzene 50	0 0 0 0	47 49 49 49 51	98	61-145 71-120 76-127 76-125 75-130

Trichloroethene 50 49 98 0 14 7	=======================================	
Toluene 50 50 100 2 13 7	ichloroethene nzene luene	61-145 71-120 76-125 76-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

Idelis Williams, QC Officer

FORM III VOA-1



page 1

Matrix: Aqueous Sample ID: VLBLK Batch: L950921104642 Reported on: 09/26/95 10:31 Analyzed on: 09/21/95 11:20

Analyst: JC

#### METHOD 8240 L264B01

Compound	Result	Detection Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
Acetone	ИD	100	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
Carbon Disulfide	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L

<u>Notes</u>

ND - Not detected.

QC Officer



### SPL Blank QC Report

page

Matrix: Aqueous Sample ID: VLBLK Batch: L950921104642

Reported on: 09/26/95 10: Analyst: JC

#### METHOD 8240 L264B01

Compound	Result	Detection Limit	
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	98 100 98	88-110	<pre>% Recovery % Recovery % Recovery</pre>

Samples in Batch 9509709-01 9509709-02 9509709-03 9509709-04 9509709-05 9509709-06 9509709-07 9509709-08 9509709-09

#### Notes

ND - Not detected.

Data File: /chem/l.i/1950921.b/l264b01.d

Report Date: 21-Sep-1995 12:21

# SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950921.b/l264b01.d

Lab Smp Id: VLBLK

Inj Date : 21-SEP-1995 11:20

Operator : JC

Inst ID: 1.i

Smp Info : VLBLK-8240W/1X Misc Info : L264W1//L264CC1

Comment

Comment :
Method : /chem/l.i/l950921.b/lvoclpw.m

Meth Date : 21-Sep-1995 10:52 jimmy Quant Type: ISTD

Cal Date : 21-SEP-1995 10:29 Cal File: 1264cc1.d Cal Date : 21-SEP-1995 10:29

Als bottle: 4 Pil Factor: 1.000 Integrator: HP RTE

Compound Sublist: all.sub Target Version: 3.10

						C	ONCENTR:	TIONS
	QUANT SIG					ON-	COLUMN	FINAL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(	ng)	( ug/L)
********	****		*****					******
23 Bromochloromethane	128.00	5.011	5.008	(1.000)	34254		250	
\$ 26 1,2-Dichloroethane-d4	102.00	5.787	5.784	(1.155)	13436		240	49
32 1,4-Difluorobenzene	114.00	6.723	6.720	(1.000)	177829		250	47
43 Toluene-d8	98.00	8.951		(0.821)	186480		250	
50 Chlorobenzene-d5	117.00	10.904		(1.000)	142687			50
\$ 61 Bromofluorobenzene	95.00	12.588	12.585		73137		250 240	49
								7,

Page 2

Data File: /chem/l.i/1950921.b/1264b01.d

Report Date: 21-Sep-1995 12:21

### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1264b01.d

Lab Smp Id: VLBLK

Analysis Type: VOA Quant Type: ISTD

Operator: JC

Method File: /chem/l.i/1950921.b/lvoclpw.m

Misc Info: L264W1//L264CC1

Calibration Date: 09/21/95

Calibration Time: 1029

Level: LOW

Sample Type: WATER

			LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
23 Bromochloromethane	34580	17290	69160	34254	-0.94
32 1,4-Difluorobenzene	181594	90797	363188	177829	-2.07
50 Chlorobenzene-d5	146649	73324	293298	142687	-2.70

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.01 6.72 10.90		5.51 7.22 11.40	5.01 6.72 10.90	0.07 0.05 0.03

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

0.25

Operator: JC Column diameter:

Instrument: 1.i

Data File: /chem/l.i/1950921.b/1264b01.d Date: 21-SEP-1995 11:20 Client ID: Sample Info: VLRK-8240U/IX Furge Volume: 5.0 Column phase: 30m,hp5ms,0.25u df

```
-8
                                                                                                                   17-
                                                                                                                   16
                                                                                                                   -13
                                                                                                                   - 🛱
                                                                                                                   13-
   Bromdfluorobenzene (12.588)
/chem/1,1/1950921,b/1264b01.d
   Chlorobenzene-d5 (10,904)
                                                                                                                   - 유
.
in
   Toluene-d8 (8,951)
                                                                                                                   - &
   1,4-Difluorobenzene (6,723)
                                       -1,2-Dichloroethane-d4 (5,787)
                                    -Browchloromethane (5,011)
                                               1.6-
7 (31.4-
7 1.3-
1.2-
     2.6-
2.5-
2.4-
2.3-
2.0-
2.0-
1.9-
1.9-
                                                                          1.0-1
0.9-
                                                                     1.1-
                                                                                           -9.0
                                                                                               0.5-
```

Page 1

Data File: /chem/l.i/1950921.b/1264bf1.d

Date : 21-SEP-95 10:13

Client ID:

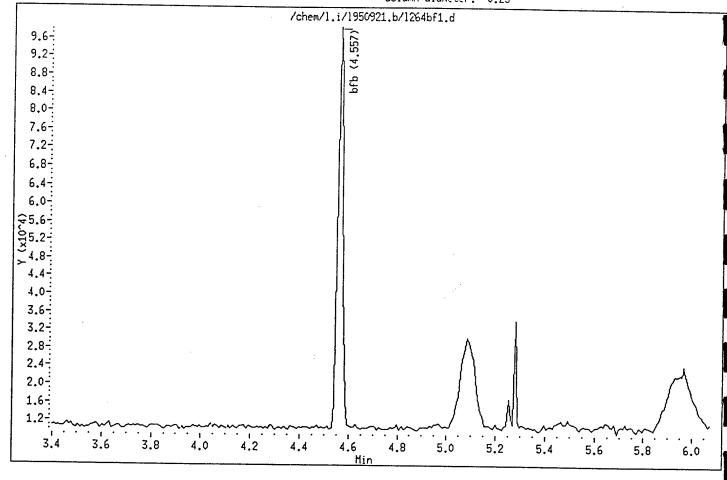
Sample Info: 250 NG BFB

Instrument: 1.i

Operator: JC

Column phase:

Column diameter: 0.25



Data File: /chem/l.i/1950921.b/1264bf1.d

Date : 21-SEP-95 10:13

Client ID:

Sample Info: 250 NG BFB

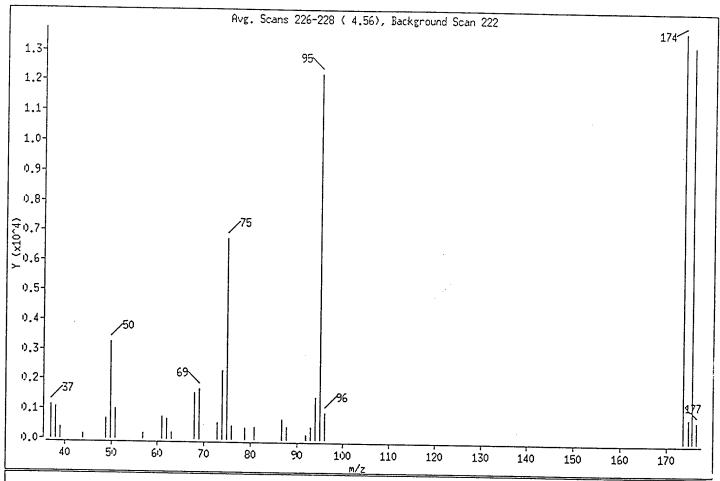
Instrument: 1.i

Operator: JC

Column diameter: 0.25



1 bfb



m/e	ION ABUNDANCE CRITERIA		Z RELATIVE ABUNDANCE
50   75   96   173   174   175   176	Base Peak, 100% relative abundance 15.00 - 40.00% of mass 95 30.00 - 60.00% of mass 95 5.00 - 9.00% of mass 95 Less than 2.00% of mass 174 50.00 - 120.00% of mass 95 5.00 - 9.00% of mass 174 95.00 - 101.00% of mass 174 5.00 - 9.00% of mass 174	             	100,00 26.58 55.23 7.54 0.00 ( 0.00) 112.22 6.52 ( 5.81) 108.57 ( 96.75) 5.95 ( 5.48)

Data File: /chem/l.i/1950921.b/1264bf1.d

Date: 21-SEP-95 10:13

Client ID:

Sample Info: 250 NG BFB

Instrument: 1.i

Operator: JC

Column phase:

Column diameter: 0.25

Data File: 1264bf1.d

Spectrum : Avg. Scans 226-228 ( 4.56), Background Scan 222

Largest m/z: 173.85 Number of peaks: 30

4.	m/z	Υ		m/z	Y		m/z	Y		m/z	Υ
1 1 1 1	36.95 37.95 38.95 44.00 48.90	671	1	60.95 61.95 63.00 68.00 68.90	761 684 215 1545 1677	1 1 1	75.85 78.85 80.85 86.90 87.80	447 394 422 683 411	1	94.95 95.95 173.85 174.95 175.85	12236   922   13731   798   13285
I I I	49.90 50.90 56.95	3252 1022 207	   	72.95 73.95 74.95	544 2317 6758	1	91.90 92.95 94.05	172 420 1414	1 1	176.85	728       

Report Date : 17-Sep-1995 06:24

#### SPL Labs

#### INITIAL CALIBRATION DATA

cart Cal Date : 16-SEP-1995 08:03 and Cal Date : 16-SEP-1995 09:24

Quant Method : ISTD

Crigin : Included

Farget Version : 3.10

Integrator : HP RTE

Method file : /chem/l.i/1950916.b/lvoclpw.m

l Date : 17-Sep-1995 06:22 jimmy

rve Type : Average

### alibration File Names:

Level 1: /chem/l.i/l950916.b/l259iw1.d Level 2: /chem/l.i/l950916.b/l259iw2.d Level 3: /chem/l.i/l950916.b/l259iw3.d Level 4: /chem/l.i/l950916.b/l259iw4.d Level 5: /chem/l.i/l950916.b/l259iw5.d

					•		
	50	100	250	500	1000	l	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
	-   =======	=======					
1 Chloromethane	2.60567	2.68763	2.44752	2.14050	2.08371	2.39300	11.337
2 Vinyl Chloride	2.11276	2.20099	1.98580	1.66855	1.46039	1.88570	16.538
3 Bromomethane	1.38366	1.39682	1.34483	1.26173	1.16163	1.30974	7.493
4 Chloroethane	1.23162	1.24450	1.21246	1.07075	1.06427	1.16472	7.684
7 Trichlorofluoromethane	1.14748	1.30725	1.30741	1.42943	1.51014	1.34034	10.294
8 Acetone	0.33275	0.34869	0.13705	0.31768	0.34747	0.29673	30.381
11 1,1-Dichloroethene	1.10358	1.22754	1.19693	1.12863	1.20109	1.17156	4.499
13 Methylene Chloride	1.56999	1.57623	1.53102	1.43488	1.50733	1.52389	3.757
14 Carbon Disulfide	5.32844	5.53000	5.46191	5.06743	5.37308	5.35217	3.313
15 trans-1,2-Dichloroethene	1.27352	1.33174	1.30897	1.22368	1.30818	1.28922	3.268
17 1,1-Dichloroethane	2.97817	3.11195	3.02117	2.84313	3.05040	3.00096	3.357
18 1,2-Dichloroethene (total)	1.57140	1.65966	1.65717	1.56106	1.62844	1.61554	2.897
19 Vinyl Acetate	3.81691	3.98207	3.89457	3.24010	3.35604	3.65794	9.190
20 2-Butanone	2.76782	2.49567	1.27633	2.32615	2.31914	2.23702	25.349
21 cis-1,2-Dichloroethene	1.86929	1.98757	2.00537	1.89844	1.94869	1.94187	2.972
24 Chloroform	3.55274	3.65839	3.50896	3.36662	3.42723	3.50279	3.224
27 1,1,1-Trichloroethane	0.46479	0.48351	0.46921	0.45307	0.45973	0.46606	2.458
28 1,2-Dichloroethane	3.20127	3.35990	3.22792	3.12683	3.10296	3.20378	3.162
30 Benzene	1.53201	1.52296	1.50119	1.43590	1.43014	1.48444	3.254
31 Carbon Tetrachloride	0.37025	0.37173	0.37025	0.35819	0.37649	0.36938	1.830
34 1,2-Dichloropropane	0.46988	0.47111	0.46193	0.44295	0.45017	0.45921	2.687
35 Trichloroethene	0.32770	0.34835	0.33926	0.33277	0.33907	0.33743	2.304
37 Bromodichloromethane	0.49142	0.48415	0.49094	0.47597	0.48867	0.48623	1.319
39 2-Chloroethylvinylether	0.25020	0.27142	0.28070	0.28948	0.28961	0.27628	5.935
40 4-Methyl-2-Pentanone	0.77578	0.85371	0.57778	0.82101	0.80042	0.76574	14.220
41 cis-1,3-Dichloropropene	0.54314	0.57247	0.59188	0.57908	0.58977	0.57527	3.412
42 trans-1,3-Dichloropropene	0.44593	0.47671	0.49514	0.48909	0.51153	0.48368	5.075
	.			l <u></u> l			<u> </u>

#### SPL Labs

#### INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-1995 08:03 End Cal Date : 16-SEP-1995 09:24

Quant Method : ISTD
Origin : Included
Target Version : 3.10
Integrator : HP RTE

Method file : /chem/l.i/1950916.b/lvoclpw.m

Cal Date : 17-Sep-1995 06:22 jimmy

Curve Type : Average

1		1	50	100	250	500	1000		
l	Compound	1	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
==		-	=======	=======			=======		
1	44 Toluene	1	0.92961	0.95755	0.99358	0.93190	0.94144	0.95081	2.76
	45 1,1,2-Trichloroethane	-1	0.30466	0.31005	0.29616	0.29293	0.28989	0.29874	2.81
	46 2-Hexanone	ļ	0.83561	0.90997	0.44224	0.90492	0.87731	0.79401	25.04
1	47 Dibromochloromethane	1	0.32577	0.33194	0.33135	0.32835	0.33714	0.33091	1.29
	49 Tetrachloroethene	İ	0.35709	0.37277	0.36238	0.34713	0.35757	0.35939	2.59
	52 Chlorobenzene	1	1.01860	1.03586	1.04675	0.99109	0.99408	1.01728	2.42
M	53 Xylene (Total)	-	0.58514	0.61813	0.63669	0.59870	0.59942	0.60762	3.29
	54 Ethylbenzene	1	0.46066	0.49386	0.50170	0.48448	0.49127	0.48639	3.21
	55 m,p-Xylene(s)	1	0.58579	0.61512	0.63813	0.59855	0.59746	0.60701	3.34
	56 Bromoform	1	0.28480	0.30121	0.31474	0.30985	0.32355	0.30683	4.80
	57 Styrene		0.91976	0.96255	1.03316	0.99457	1.02494	0.98699	4.73
	59 o-Xylene	-	0.58383	0.62415	0.63380	0.59898	0.60334	0.60882	3.29
	60 1,1,2,2-Tetrachloroethane	-	0.56368	0.57927	0.58027	0.55687	0.54460	0.56494	2.68
==		==:		=======					=======
\$	26 1,2-Dichloroethane-d4	-	0.39403	0.42078	0.42097	0.42205	0.43032	0.41763	3.29
\$	43 Toluene-d8	-	1.23987	1.29524	1.31149	1.28819	1.27991	1.28294	2.08
\$	61 Bromofluorobenzene	1	0.49566	0.51410	0.52960	0.54393	0.53847	0.52435	3.74
		1	1	1				1	ı

ta File: /chem/l.i/l950916.b/l259iw1.d Report Date: 16-Sep-1995 09:56

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950916.b/l259iw1.d

ab Smp Id: VSTD010

hj Date : 16-SEP-1995 08:03

Operator : JC Inst ID: 1.i

cmp Info : VSTD010-8240W/1X isc Info : L259W1//L259IW3

comment

Method : /chem/l.i/l950916.b/lvoclpw.m

eth Date : 16-Sep-1995 09:56 jimmy Quant Type: ISTD late : 16-SEP-1995 07:36 Cal File: 1259iw3.d

Als bottle: 3

Calibration Sample, Level: 1 l Factor: 1.000

ntegrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

•					AMOUN		
i.	QUANT SIG				CAL-AMT	ON-COL	
npounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)	
		==		=======		======	
1 Chloromethane	50.00	1.675	1.675 (0.335	) 15732	50	54	
2 Vinyl Chloride	62.00	1.790	1.790 (0.358	) 12756	50	56	
3 Bromomethane	94.00	2.004	2.004 (0.401	) 8354	50	53	
4 Chloroethane	64.00	2.067	2.067 (0.413	) 7436	50	53	
7 Trichlorofluoromethane	101.00	2.405	2.405 (0.481	) 6928	50	43 (M	) + C
8 Acetone	58.00	2.450	2.450 (0.490	) 2009	50	56	1.61
11 1,1-Dichloroethene	96.00	2.833	2.833 (0.567	) 6663	50	47	of 161
13 Methylene Chloride	84.00	3.065	3.065 (0.613	) 9479	50	52	ł
18 1,2-Dichloroethene (total)	96.00			18975	100	97	
14 Carbon Disulfide	76.00	3.181	3.181 (0.636	) 32171	50	50	
15 trans-1,2-Dichloroethene	96.00	3.618	3.618 (0.724	) 7689	50	49	
,17 1,1-Dichloroethane	63.00	3.939	3.939 (0.788	) 17981	50	50	
19 Vinyl Acetate	43.00	4.028	4.028 (0.806	) 23045	50	52	
20 2-Butanone	43.00	4.402	4.402 (0.881	) 16711	50	62	
21 cis-1,2-Dichloroethene	96.00	4.741	4.741 (0.948	) 11286	50	48	
24 Chloroform	83.00	5.017	5.017 (1.004	) 21450	50	51	
27 1,1,1-Trichloroethane	97.00	5.802	5.802 (0.863	) 14243	50	50	
28 1,2-Dichloroethane	62.00	5.891	5.891 (1.178	) 19328	50	50	
30 Benzene	78.00	6.247	6.247 (0.930	) 46947	50	52	
31 Carbon Tetrachloride	117.00	6.283	6.283 (0.935	) 11346	50	50	
34 1,2-Dichloropropane	63.00	7.246	7.246 (1.078	) 14399	50	51	
35 Trichloroethene	130.00	7.281	7.281 (1.084	) 10042	50	48	
37 Bromodichloromethane	83.00	7.469	7.469 (1.111	) 15059	50	50	
39 2-Chloroethylvinylether	63.00	8.084	8.084 (1.203	) 7667	50	45	
40 4-Methyl-2-Pentanone	43.00	8.306	8.306 (1.236	) 23773	50	51	
41 cis-1,3-Dichloropropene	75.00	8.333	8.333 (1.240	) 16644	50	47	
42 trans-1,3-Dichloropropene	75.00	8.966	8.966 (1.334	) 13665	50	46	
44 Toluene	92.00	9.046	9.046 (0.829	) 23984	50	49	
45 1,1,2-Trichloroethane	83.00	9.135	9.135 (1.359	9336	50	51	

Data File: /chem/l.i/1950916.b/1259iw1.d

Report Date: 16-Sep-1995 09:56

							TS
		QUANT SIG				CAL-AMT	ON-COL
Co	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
==			==			======	======
	46 2-Hexanone	43.00	9.519	9.519 (0.873)	21559	50	53
	47 Dibromochloromethane	129.00	9.759	9.759 (1.452)	9983	50	49
	49 Tetrachloroethene	164.00	10.107	10.107 (0.926)	9213	50	50
	52 Chlorobenzene	112.00	10.954	10.954 (1.004)	26280	50	50
M	53 Xylene (Total)	106.00			45290	150	140
	54 Ethylbenzene	106.00	11.257	11.257 (1.032)	11885	50	47
	55 m,p-Xylene(s)	106.00	11.426	11.426 (1.047)	30227	100	96
	56 Bromoform	173.00	11.836	11.836 (1.085)	7348	50	46
	57 Styrene	104.00	11.890	11.890 (1.090)	23730	50	46
	59 o-Xylene	106.00	11.943	11.943 (1.095)	15063	50	48
	60 1,1,2,2-Tetrachloroethane	83.00	12.300	12.300 (1.127)	14543	50	50
*	23 Bromochloromethane	128.00	4.999	4.999 (1.000)	30188	250	
*	32 1,4-Difluorobenzene	114.00	6.720	6.720 (1.000)	153220	250	
*	50 Chlorobenzene-d5	117.00	10.909	10.909 (1.000)	129001	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.775	5.775 (1.155)	2379	50	47
\$	43 Toluene-d8	98.00	8.948	8.948 (0.820)	31989	50	48
\$	61 Bromofluorobenzene	95.00	12.585	12.585 (1.154)	12788	50	47

# QC Flag Legend

M - Compound response manually integrated.

the software missed the peak because

Data File: /chem/l.i/1950916.b/1259iw1.d

Report Date: 16-Sep-1995 09:56

SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: l.i Lab File ID: 1259iw1.d Lab Smp Id: VSTD010

Calibration Date: 09/16/95 Calibration Time: 0736

Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

Operator: JC

Method File: /chem/l.i/l950916.b/lvoclpw.m

Misc Info: L259W1//L259IW3

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	30142 155837 130066	15071 77918 65033	60284 311674 260132	30188 153220 129001	
		65033	200132	129001	-0.82

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	5.00		5.50	5.00	-0.07
32 1,4-Difluorobenzene	6.72		7.22	6.72	-0.05
50 Chlorobenzene-d5	10.90		11.40	10.91	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

0.25 -Bromofluorobenzene (12,585) Operator: JC Column diameter: Instrument: 1.i /chem/1.i/1950916.b/1259iw1.d Chicrobenzera-d5 (10,909)+ +(726.8) 8b-snsuloT-1.4-Diffluorobenzene (6.720) Data File: /chem/l.i/1950916.b/12591w1.d Date : 16-SEP-1995 08:03 1,2-Dichloroethane-d4 (5,784)+ Sample Info: WSTD010-8246W/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0.25u df +(860.4) enadtemonoIdoomona-~ Client ID: ·9•0 7 (±10°5) 7 (±1.1-1.9-1.0--6.0 0.8-.7-0 2.0-1.8-1.7-1.6-1.5-1.3-0.5ata File: /chem/l.i/l950916.b/l259iw2.d

Report Date: 16-Sep-1995 09:56

# SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950916.b/l259iw2.d

hab Smp Id: VSTD020

nj Date : 16-SEP-1995 08:31

Operator : JC Inst ID: 1.i

Smp Info : VSTD020-8240W/1X isc Info : L259W1//L259IW3

omment

Method : /chem/l.i/l950916.b/lvoclpw.m

eth Date : 16-Sep-1995 09:56 jimmy

Quant Type: ISTD al Date : 16-SEP-1995 07:36 Cal File: 1259iw3.d

Als bottle: 4 Calibration Sample, Level: 2

Pil Factor: 1.000

ntegrator: HP RTE rarget Version: 3.10 Compound Sublist: normal.sub

-37						AUOMA.	TS
_		QUANT SIG				CAL-AMT	ON-COL
<b>3</b>	punds	MASS	RT	EXP RT REL RT	response	( ng)	( ng)
7		====	==		=======	======	
1	Chloromethane	50.00	1.687	1.687 (0.337	7) 31055	100	110
2	Vinyl Chloride	62.00	1.794	1.794 (0.359	25432	100	120
3	Bromomethane	94.00	1.999	1.999 (0.400	)) 16140	100	110
<b>—</b> 4	Chloroethane	64.00	2.061	2.061 (0.412	2) 14380	100	110
_ 7	Trichlorofluoromethane	101.00	2.409	2.409 (0.482	2) 15105	100	98
8	Acetone	58.00	2.471	2.471 (0.494	4029	100	120
11	1,1-Dichloroethene	96.00	2.837	2.837 (0.567	14184	100	100
13	Methylene Chloride	84.00	3.060	3.060 (0.612	18213	100	100
18	1,2-Dichloroethene (total)	96.00			38354	200	200
14	Carbon Disulfide	76.00	3.185	3.185 (0.637	63898	100	100
15	trans-1,2-Dichloroethene	96.00	3.630	3.630 (0.726	15388	100	100
	1,1-Dichloroethane	63.00	3.942	3.942 (0.788	35958	100	100
19	Vinyl Acetate	43.00	4.031	4.031 (0.806	46012	100	110
20	2-Butanone	43.00	4.406	4.406 (0.881	28837	100	110
_ 21	cis-1,2-Dichloroethene	96.00	4.745	4.745 (0.948	) 22966	100	100
24	Chloroform	83.00	5.021	5.021 (1.004	) 42272	100	100
27	1,1,1-Trichloroethane	97.00	5.814	5.814 (0.865	) 29285	100	100
28	1,2-Dichloroethane	62.00	5.894	5.894 (1.178	) 38823	100	100
<b>1</b> 30	Benzene	78.00	6.251	6.251 (0.930	) 92242	100	100
31	Carbon Tetrachloride	117.00	6.278	6.278 (0.934	) 22515	100	100
34	1,2-Dichloropropane	63.00	7.249	7.249 (1.078	) 28534	100	100
35	Trichloroethene	130.00	7.276	7.276 (1.082	) 21099	100	100
37	Bromodichloromethane	83.00	7.472	7.472 (1.111	) 29324	100	100
39	2-Chloroethylvinylether	63.00	8.078	8.078 (1.202	) 16439	100	98
40	4-Methyl-2-Pentanone	43.00	8.310	8.310 (1.236	) 51707	100	110
<b>#</b> 1	cis-1,3-Dichloropropene	75.00	8.337	8.337 (1.240	) 34673	100	100
42	trans-1,3-Dichloropropene	75.00	8.970	8.970 (1.334	) 28873	100	98
~44	Toluene	92.00	9.050	9.050 (0.830	) 48665	100	100
45	1,1,2-Trichloroethane	83.00	9.139	9.139 (1.359)		100	100

Data File: /chem/l.i/l950916.b/l259iw2.d Report Date: 16-Sep-1995 09:56

\$ 61 Bromofluorobenzene

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
Co	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
==	******************	====	==	=======		======	======
	46 2-Hexanone	43.00	9.522	9.522 (0.873)	46247	100	110
	47 Dibromochloromethane	129.00	9.763	9.763 (1.452)	20105	100	100
	49 Tetrachloroethene	164.00	10.111	10.111 (0.927)	18945	100	100
	52 Chlorobenzene	112.00	10.949	10.949 (1.004)	52645	100	100
M	53 Xylene (Total)	106.00			94245	300	300
	54 Ethylbenzene	106.00	11.261	11.261 (1.033)	25099	100	100
	55 m,p-Xylene(s)	106.00	11.421	11.421 (1.047)	62524	200	200
	56 Bromoform	173.00	11.840	11.840 (1.086)	15308	100	98
	57 Styrene	104.00	11.893	11.893 (1.091)	48919	100	98
	59 o-Xylene	106.00	11.947	11.947 (1.096)	31721	100	100
	60 1,1,2,2-Tetrachloroethane	83.00	12.295	12.295 (1.128)	29440	100	100
*	23 Bromochloromethane	128.00	5.003	5.003 (1.000)	28887	250	
*	32 1,4-Difluorobenzene	114.00	6.723	6.723 (1.000)	151419	250	
*	50 Chlorobenzene-d5	117.00	10.904	10.904 (1.000)	127056	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.779	5.779 (1.155)	4862	100	100
\$	43 Tolúene-d8	98.00	8.952	8.952 (0.821)	65827	100	100

12.589 12.589 (1.155)

26128

100

98

95.00

Data File: /chem/l.i/l950916.b/l259iw2.d

Report Date: 16-Sep-1995 09:56

## SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1259iw2.d Lab Smp Id: VSTD020 Analysis Type: VOA

Calibration Date: 09/16/95 Calibration Time: 0736

Level: LOW

Sample Type: WATER

Quant Type: ISTD

perator: JC
lethod File: /chem/l.i/1950916.b/lvoclpw.m

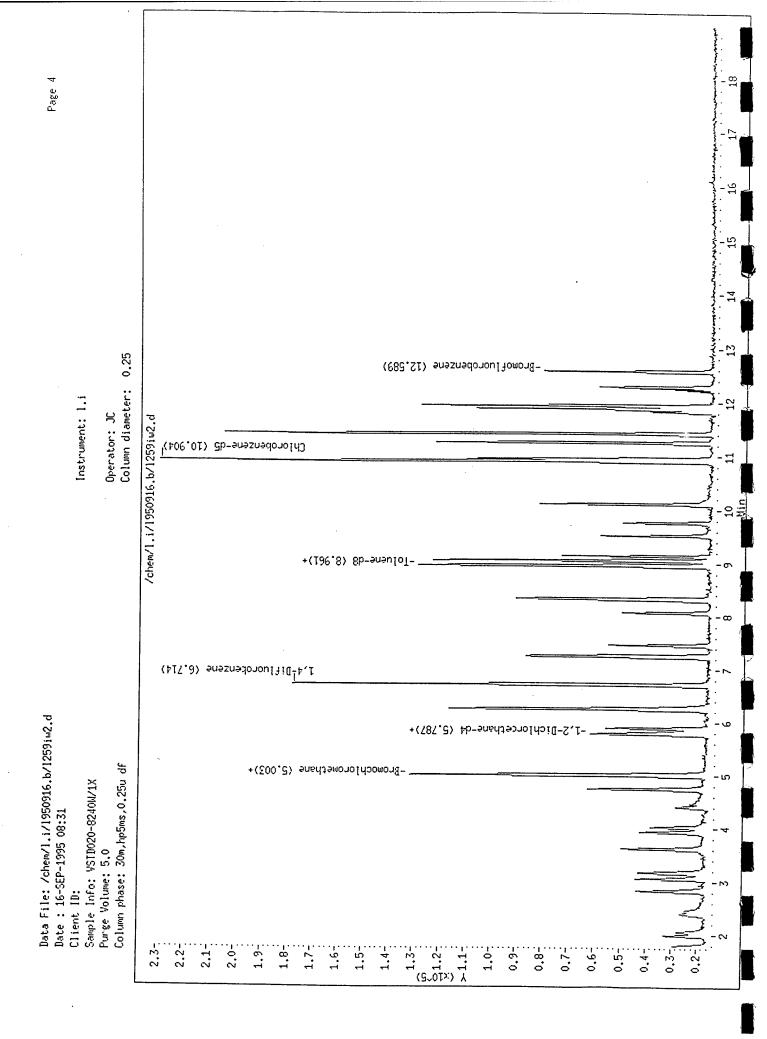
Misc Info: L259W1//L259IW3

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	30142	15071	60284	28887	-4.16
32 1,4-Difluorobenzene	155837	77918	311674	151419	-2.84
50 Chlorobenzene-d5	130066	65033	260132	127056	-2.31

· · · · · · · · · · · · · · · · · · ·	~				
COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.00 6.72 10.90	4.50 6.22 10.40	5.50 7.22 11.40	5.00 6.72 10.90	0.01 0.00 0.00

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

T UPPER LIMIT = + 0.50 minutes of internal standard RT. T LOWER LIMIT = - 0.50 minutes of internal standard RT.



In ta File: /chem/l.i/1950916.b/1259iw3.d
Report Date: 16-Sep-1995 09:57

## SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950916.b/l259iw3.d

Imb Smp Id: VSTD050

I j Date : 16-SEP-1995 07:36

Operator : JC Inst ID: 1.i

Smp Info : VSTD050-8240W/1X
Masc Info : L259W1//L259IW3

mment :

Method : /chem/l.i/1950916.b/lvoclpw.m

Month Date : 16-Sep-1995 09:57 jimmy Quant Type: ISTD Cal File: 1259iw3 d

Cal File: 1259iw3.d Calibration Sample, Level: 3

Dil Factor: 1.000
Integrator: HP RTE
Compound Sublist: pormal sub

Target Version: 3.10

Compound Sublist: normal.sub

•					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
Comounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	====	==			======	======
1 Chloromethane	50.00	1.687	1.687 (0.337)	73773	250	260
2 Vinyl Chloride	62.00	1.794	1.794 (0.359)	59856	250	260
3 Bromomethane	94.00	2.008	2.008 (0.401)	40536	250	260
4 Chloroethane	64.00	2.061	2.061 (0.412)	36546	250	260
7 Trichlorofluoromethane	101.00	2.409	2.409 (0.481)	39408	250	240
8 Acetone	58.00	2.462	2.462 (0.492)	4131	250	120
1 1,1-Dichloroethene	96.00	2.837	2.837 (0.567)	36078	250	260
13 Methylene Chloride	84.00	3.068	3.068 (0.613)	46148	250	250
M 8 1,2-Dichloroethene (total)	96.00			99901	500	510
4 Carbon Disulfide	76.00	3.184	3.184 (0.636)	164633	250	260
15 trans-1,2-Dichloroethene	96.00	3.630	3.630 (0.726)	39455	250	250
7 1,1-Dichloroethane	63.00	3.942	3.942 (0.788)	91064	250	250
9 Vinyl Acetate	43.00	4.031	4.031 (0.806)	117390	250	270
20 2-Butanone	43.00	4.405	4.405 (0.881)	38471	250	140
21 cis-1,2-Dichloroethene	96.00	4.744	4.744 (0.948)	60446	250	260
4 Chloroform	83.00	5.021	5.021 (1.004)	105767	250	250
7 1,1,1-Trichloroethane	97.00	5.814	5.814 (0.865)	73121	250	250
28 1,2-Dichloroethane	62.00	5.894	5.894 (1.178)	97296	250	250
(a) Benzene	78.00	6.260	6.260 (0.931)	233941	250	250
l Carbon Tetrachloride	117.00	6.286	6.286 (0.935)	57699	250	250
34 1,2-Dichloropropane	63.00	7.249	7.249 (1.078)	71986	250	250
35 Trichloroethene	130.00	7.276	7.276 (1.082)	52870	250	250
7 Bromodichloromethane	83.00	7.472	7.472 (1.111)	76507	250	250
2-Chloroethylvinylether	63.00	8.087	8.087 (1.203)	43743	250	250
40 4-Methyl-2-Pentanone	43.00	8.310	8.310 (1.236)	90039	250	190
cis-1,3-Dichloropropene	75.00	8.336	8.336 (1.240)	92237	250	260
trans-1,3-Dichloropropene	75.00	8.969	8.969 (1.334)	77161	250	260
44 Toluene	92.00	9.050	9.050 (0.830)	129231	250	260
45 1,1,2-Trichloroethane	83.00	9.139	9.139 (1.359)	46152	250	250

Data File: /chem/l.i/1950916.b/1259iw3.d

Report Date: 16-Sep-1995 09:57

43 Toluene-d8

\$ 61 Bromofluorobenzene

					AMOUNTS			
	QUANT SIG				CAL-AMT	ON-COL		
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)		
	===	==			======	======		
46 2-Hexanone	43.00	9.522	9.522 (0.873)	57520	250	140		
47 Dibromochloromethane	129.00	9.763	9.763 (1.452)	51637	250	250		
49 Tetrachloroethene	164.00	10.110	10.110 (0.927)	47133	250	250		
52 Chlorobenzene	112.00	10.957	10.957 (1.005)	136147	250	260		
M 53 Xylene (Total)	106.00			248434	750	780		
54 Ethylbenzene	106.00	11.260	11.260 (1.033)	65254	250	260		
55 m,p-Xylene(s)	106.00	11.430	11.430 (1.048)	165998	500	520		
56 Bromoform	173.00	11.840	11.840 (1.086)	40937	250	260		
57 Styrene	104.00	11.893	11.893 (1.091)	134379	250	260		
59 o-Xylene	106.00	11.947	11.947 (1.096)	82436	250	260		
60 1,1,2,2-Tetrachloroethan	e 83.00	12.294	12.294 (1.128)	75474	250	260		
* 23 Bromochloromethane	128.00	5.003	5.003 (1.000)	30142	250			
* 32 1,4-Difluorobenzene	114.00	6.723	6.723 (1.000)	155837	250			
* 50 Chlorobenzene-d5	117.00	10.904	10.904 (1.000)	130066	250			
\$ 26 1,2-Dichloroethane-d4	102.00	5.778	5.778 (1.155)	12689	250	250		

8.952 8.952 (0.821)

12.588 12.588 (1.155)

250

250

260

250

170580

68883

98.00

95.00

Data File: /chem/l.i/l950916.b/l259iw3.d

Report Date: 16-Sep-1995 09:57

#### SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1259iw3.d Lab Smp Id: VSTD050

Calibration Date: 09/16/95 Calibration Time: 0736

Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

Dperator: JC /chem/l.i/1950916.b/lvoclpw.m

Misc Info: L259W1//L259IW3

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	30142 155837 130066	77918		30142 155837 130066	0.00 0.00 0.00

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	5.00	4.50	5.50	5.00	0.00
32 1,4-Difluorobenzene	6.72	6.22	7.22	6.72	
50 Chlorobenzene-d5	10.90	10.40	11.40	10.90	

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.

T UPPER LIMIT = + 0.50 minutes of internal standard RT. T LOWER LIMIT = - 0.50 minutes of internal standard RT.

ata File: /chem/l.i/1950916.b/1259iw4.d

Report Date: 16-Sep-1995 09:57

## SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950916.b/l259iw4.d

➡b Smp Id: VSTD100

nj Date : 16-SEP-1995 08:59

Operator : JC Inst ID: 1.i

Smp Info : VSTD100-8240W/1X
Lsc Info : L259W1//L259IW3

mment :

Method : /chem/l.i/l950916.b/lvoclpw.m

Teth Date: 16-Sep-1995 09:57 jimmy Quant Type: ISTD

Lal Date: 16-SEP-1995 07:36 Cal File: 1259iw3.d

The Date : 16-SEP-1995 07:36 Cal File: 1259iw3.d Als bottle: 5 Calibration Sample Tevel:

Als bottle: 5 Calibration Sample, Level: 4

Integrator: HP RTE Compound Sublist: normal.sub

							AMOUN	)TS
	QUANT SIG					CAL	-AMT	ON-COL
pounds	MASS	RT	EXP RT REI	L RT I	RESPONSE	(	ng)	( ng)
	====	==	===== ===	==== :		===:		======
1 Chloromethane	50.00	1.694	1.694 (0.	.338)	129697		500	450
2 Vinyl Chloride	62.00	1.792	1.792 (0.	.358)	101101		500	440
3 Bromomethane	94.00	2.006	2.006 (0.	.400)	76451		500	480
4 Chloroethane	64.00	2.069	2.069 (0.	.413)	64879		500	460
7 Trichlorofluoromethane	101.00	2.407	2.407 (0.	.480)	86612		500	530
8 Acetone	58.00	2.470	2.470 (0.	.493)	19249		500	540
11 1,1-Dichloroethene	96.00	2.844	2.844 (0.	.568)	68386		500	480
13 Methylene Chloride	84.00	3.067	3.067 (0.	.612)	86942		500	470
18 1,2-Dichloroethene (total)	96.00				189175	:	1000	970
14 Carbon Disulfide	76.00	3.183	3.183 (0.	.635)	307046		500	470
15 trans-1,2-Dichloroethene	96.00	3.629	3.629 (0.	.724)	74145		500	470
17 1,1-Dichloroethane	63.00	3.949	3.949 (0.	.788)	172271		500	470
19 Vinyl Acetate	43.00	4.039	4.039 (0.	.806)	196324		500	440
20 2-Butanone	43.00	4.404	4.404 (0.	.879)	140946		500	520
21 cis-1,2-Dichloroethene	96.00	4.752	4.752 (0.	.948)	115030		500	490
24 Chloroform	83.00	5.028	5.028 (1.	.004)	203990		500	480
27 1,1,1-Trichloroethane	97.00	5.812	5.812 (0.	.865)	140737		500	490
28 1,2-Dichloroethane	62.00	5.893	5.893 (1.	176)	189461		500	490
30 Benzene	78.00	6.258	6.258 (0.	.931)	446030		500	480
31 Carbon Tetrachloride	117.00	6.285	6.285 (0.	.935)	111263		500	480
34 1,2-Dichloropropane	63.00	7.248	7.248 (1.	.078)	137594		500	480
35 Trichloroethene	130.00	7.283	7.283 (1.	084)	103367		500	490
37 Bromodichloromethane	83.00	7.470	7.470 (1.	111)	147851		500	490
39 2-Chloroethylvinylether	63.00	8.086	8.086 (1.	.203)	89920		500	520
40 4-Methyl-2-Pentanone	43.00	8.308	8.308 (1.	236)	255028		500	540
41 cis-1,3-Dichloropropene	75.00	8.344	8.344 (1.		179878		500	500
42 trans-1,3-Dichloropropene	75.00	8.968	8.968 (1.		151926		500	500
44 Toluene	92.00	9.057	9.057 (0.		245635		500	490
45 1,1,2-Trichloroethane	83.00	9.137	9.137 (1.	·	90992		500	490

Data File: /chem/l.i/1950916.b/1259iw4.d Report Date: 16-Sep-1995 09:57

N-COL
ng)
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570
500
480
490
1500
500
990
500
500
490
490
500
500
520
-

Data File: /chem/l.i/1950916.b/1259iw4.d

Report Date: 16-Sep-1995 09:57

#### SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: l.i Lab File ID: 1259iw4.d

Calibration Date: 09/16/95 Calibration Time: 0736

Lab Smp Id: VSTD100 Analysis Type: VOA

Level: LOW

Sample Type: WATER

Quant Type: ISTD Operator: JC

Method File: /chem/l.i/1950916.b/lvoclpw.m

Misc Info: L259W1//L259IW3

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
23 Bromochloromethane	30142		60284	30296	0.51
32 1,4-Difluorobenzene	155837		311674	155314	-0.34
50 Chlorobenzene-d5	130066	65033	260132	131793	1.33

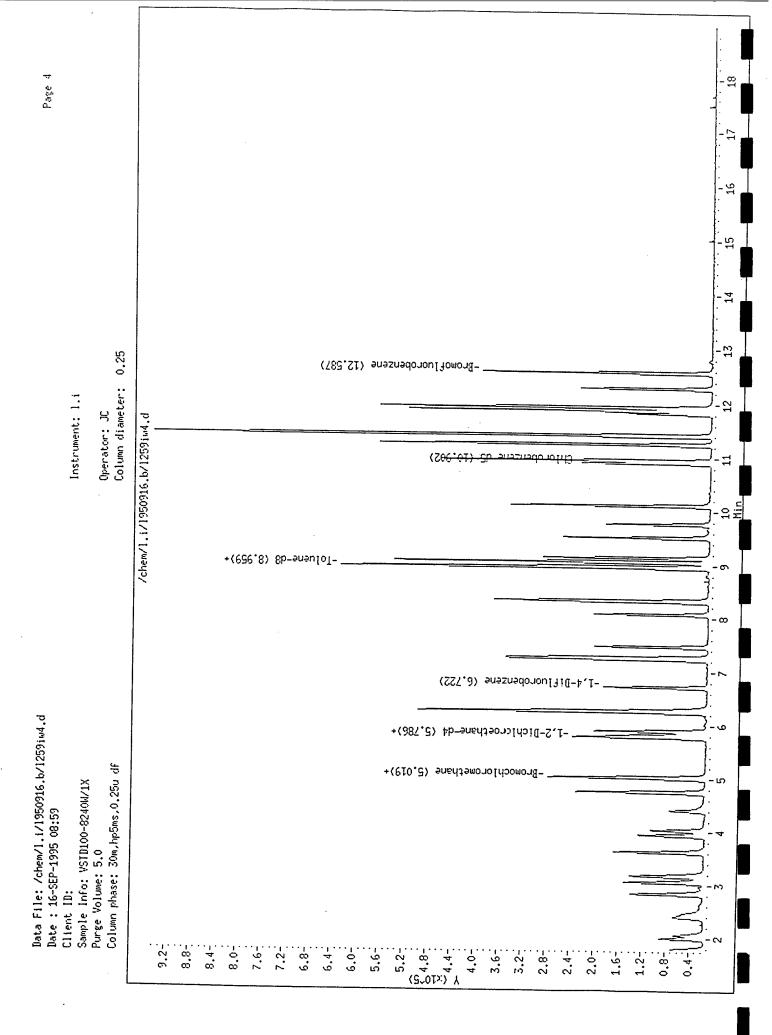
COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.00	4.50	5.50	5.01	0.15
	6.72	6.22	7.22	6.72	-0.02
	10.90	10.40	11.40	10.91	0.07

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

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Data File: /chem/l.i/1950916.b/1259iw5.d

Report Date: 16-Sep-1995 09:57

#### SPL Labs

Volatiles by 624/8240

ata file : /chem/l.i/l950916.b/l259iw5.d

ab Smp Id: VSTD200

Inj Date : 16-SEP-1995 09:24

Operator : JC Inst ID: 1.i

mp Info : VSTD200-8240W/1X Hisc Info : L259W1//L259IW3

Comment :

ethod : /chem/l.i/l950916.b/lvoclpw.m

eth Date: 16-Sep-1995 09:57 jimmy Quant Type: ISTD

Als bottle: 6 Calibration Sample, Level: 5

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

_					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
mpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
=======================================		==	=======================================	======		======
1 Chloromethane	50.00	1.693	1.693 (0.337)	255071	1000	870
2 Vinyl Chloride	62.00	1.800	1.800 (0.359)	178769	1000	770
3 Bromomethane	94.00	2.014	2.014 (0.401)	142197	1000	890
4 Chloroethane	64.00	2.076	2.076 (0.414)	130280	1000	910
7 Trichlorofluoromethane	101.00	2.424	2.424 (0.483)	184859	1000	1100
8 Acetone	58.00	2.468	2.468 (0.492)	42534	1000	1200
11 1,1-Dichloroethene	96.00	2.852	2.852 (0.568)	147028	1000	1000
13 Methylene Chloride	84.00	3.075	3.075 (0.613)	184515	1000	990
18 1,2-Dichloroethene (total)	96.00			398680	2000	2000
14 Carbon Disulfide	76.00	3.199	3.199 (0.638)	657729	1000	1000
15 trans-1,2-Dichloroethene	96.00	3.636	3.636 (0.725)	160137	1000	1000
17 1,1-Dichloroethane	63.00	3.957	3.957 (0.789)	373405	1000	1000
19 Vinyl Acetate	43.00	4.046	4.046 (0.806)	410820	1000	920
20 2-Butanone	43.00	4.412	4.412 (0.879)	283891	1000	1000
21 cis-1,2-Dichloroethene	96.00	4.750	4.750 (0.947)	238543	1000	1000
24 Chloroform	83.00	5.036	5.036 (1.004)	419534	1000	980
27 1,1,1-Trichloroethane	97.00	5.820	5.820 (0.865)	290295	1000	990
28 1,2-Dichloroethane	62.00	5.900	5.900 (1.176)	379839	1000	970
30 Benzene	78.00	6.266	6.266 (0.931)	903062	1000	960
31 Carbon Tetrachloride	117.00	6.293	6.293 (0.935)	237732	1000	1000
34 1,2-Dichloropropane	63.00	7.255	7.255 (1.078)	284257	1000	980
35 Trichloroethene	130.00	7.282	7.282 (1.082)	214103	1000	1000
37 Bromodichloromethane	83.00	7.478	7.478 (1.111)	308571	1000	1000
39 2-Chloroethylvinylether	63.00	8.084	8.084 (1.201)	182874	1000	1000
40 4-Methyl-2-Pentanone	43.00	8.307	8.307 (1.234)	505423	1000	1000
41 cis-1,3-Dichloropropene	75.00	8.343	8.343 (1.240)	372410	1000	1000
42 trans-1,3-Dichloropropene	75.00	8.976	8.976 (1.334)	323006	1000	1000
44 Toluene	92.00	9.056	9.056 (0.830)	503441	1000	990
45 1,1,2-Trichloroethane	83.00	9.136	9.136 (1.358)	183049	1000	970
-						2.0

Data File: /chem/l.i/1950916.b/l259iw5.d Peport Date: 16-Sep-1995 09:57

					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
=======================================	====	==	==========			======
46 2-Hexanone	43.00	9.519	9.519 (0.873)	469147	1000	1100
47 Dibromochloromethane	129.00	9.769	9.769 (1.452)	212888	1000	1000
49 Tetrachloroethene	164.00	10.108	10.108 (0.926)	191213	1000	990
52 Chlorobenzene	112.00	10.954	10.954 (1.004)	531590	1000	980
53 Xylene (Total)	106.00		4	961636	3000	3000
54 Ethylbenzene	106.00	11.258	11.258 (1.032)	262707	1000	1000
55 m,p-Xylene(s)	106.00	11.427	11.427 (1.047)	638995	2000	2000
56 Bromoform	173.00	11.837	11.837 (1.085)	173020	1000	1000
57 Styrene	104.00	11.890	11.890 (1.090)	548092	1000	1000
59 o-Xylene	106.00	11.944	11.944 (1.095)	322641	1000	990
60 1,1,2,2-Tetrachloroethane	83.00	12.300	12.300 (1.127)	291227	1000	960
23 Bromochloromethane	128.00	5.018	5.018 (1.000)	30603	250	
* 32 1,4-Difluorobenzene	114.00	6.729	6.729 (1.000)	157862	250	
50 Chlorobenzene-d5	117.00	10.910	10.910 (1.000)	133689	250	
26 1,2-Dichloroethane-d4	102.00	5.784	5.784 (1.153)	52676	1000	1000
\$ 43 Toluene-d8	98.00	8.958	8.958 (0.821)	684442	1000	1000
\$ 61 Bromofluorobenzene	95.00	12.586	12.586 (1.154)	287948	1000	1000

Data File: /chem/l.i/1950916.b/1259iw5.d

Report Date: 16-Sep-1995 09:57

Page 3

# SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i
Lab File ID: 1259iw5.d

Calibration Date: 09/16/95 Calibration Time: 0736

Lab Smp Id: VSTD200 Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

Operator: JC

Method File: /chem/l.i/l950916.b/lvoclpw.m Misc Info: L259W1//L259IW3

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	30142 155837 130066	15071 77918 65033	60284 311674 260132	30603 157862 133689	1.53 1.30 2.79

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.00	4.50	5.50	5.02	0.30
	6.72	6.22	7.22	6.73	0.09
	10.90	10.40	11.40	10.91	0.06

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/l.i/1950916.b/12591w5.d Date : 16-SEP-1995 09:24

Client ID:

Data File: /chem/l.i/1950921.b/l264cc1.d Page 1

Report Date: 04-Oct-1995 16:54

## SPL Houston Labs

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 1.i Lab File ID: 1264cc1.d Analysis Type: WATER Lab Sample ID: VSTD050 Injection Date: 21-SEP-1995 10:29

Init. Calibration Date(s): 09/16/95 09/16/95
Init. Calibration Times: 08:03 09:24
Method File: /chem/l.i/1950921.b/lvoclpw.m

Quant Type: ISTD

C01	ADOURID	l	DE050	MIN		MAX
	4POUND	RRF	RF250	RRF	%D 	%D·
	L Chloromethane	2.393		0.010		40.
2	2 Vinyl Chloride	1.886	2.280	0.100	20.9	25.
3	3 Bromomethane	1.310		0.100		25.
4	1 Chloroethane	1.165		0.010		40.
7	7 Trichlorofluoromethane	1.340	,	0.010		40.
8	3 Acetone	0.297		0.010		100.
11	l 1,1-Dichloroethene	1.172	1.288	0.100	10.0	•
13	Methylene Chloride	1.524		0.010	12.1	
18	3 1,2-Dichloroethene (total)	1.616		0.010		40.
14	l Carbon Disulfide	5.352		0.010		40.
15	trans-1,2-Dichloroethene	1.289		0.010		40.
17	7 1,1-Dichloroethane	3.001	3.178	0.200		25.
19	Vinyl Acetate	3.658	3.934	0.010	7.6	100.
20	2-Butanone	2.237	1.361	0.010	39.2	100.
21	cis-1,2-Dichloroethene	1.942	1.926	0.010	0.8	25.
24	Chloroform	3.503	3.434	0.200	2.0	25.
27	1,1,1-Trichloroethane	0.466	0.477	0.100	2.3	25.
28	1,2-Dichloroethane	3.204	3.000	0.100	6.3	25.
30	Benzene	1.484	1.477	0.500	0.5	_   25.
31	. Carbon Tetrachloride	0.369	0.412	0.100	11.4	25.
34	1,2-Dichloropropane	0.459	0.432	0.010	5.9	25.
35	Trichloroethene	0.337	0.351	0.300	4.2	25.
37	Bromodichloromethane	0.486	0.479	0.200	1.5	25.
39	2-Chloroethylvinylether	0.276	0.283	0.010	2.5	100.
40	4-Methyl-2-Pentanone	0.766	0.770	0.010	0.6	100.
41	cis-1,3-Dichloropropene	0.575	0.600	0.100	4.3	25.
42	trans-1,3-Dichloropropene	0.484	0.529	0.100	9.5	25.
44	Toluene	0.951	0.996	0.400	4.8	25.
45	1,1,2-Trichloroethane	0.299	0.281	0.100	6.0	25.
46	2-Hexanone	0.794	0.866	0.010	9.1	100.
47	Dibromochloromethane	0.331	0.342	0.100	3.4	25.
49	Tetrachloroethene	0.359	0.416	0.200	15.9	25.
52	Chlorobenzene	1.017	1.020	0.500	0.3	25.
53	Xylene (Total)	0.608	0.629	0.300	3.5	25.
54	Ethylbenzene	0.486			2.5	25.
55	m,p-Xylene(s)	0.607	0.634	0.300	4.5	25.
56	Bromoform	0.307	0.3881	0.100	26.5	40.
57	Styrene	0.987	1.047	0.300	6.1	25.
59	o-Xylene	0.609	0.618	0.300	1.4	25.
60	1,1,2,2-Tetrachloroethane	0.565	0.551	0.3001	2.41	25.

Data File: /chem/l.i/1950921.b/l264cc1.d

eport Date: 04-Oct-1995 16:54

## SPL Houston Labs

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 1.i

Tab File ID: 1264cc1.d

Table Additional Control of the ID: VSTD050

Injection Date: 21-SEP-1995 10:29
Init Calibration Date(s): 09/16/9

Init. Calibration Date(s): 09/16/95 09/16/95
Init. Calibration Times: 08:03 09:24
Method File: /chem/l.i/1950921.b/lvoclpw.m

uant Type: ISTD

	I I	MIN	MAX
COMPOUND	RRF	RF250   RRF	%D   %D
	= =======	=======================================	
\$ 26 1,2-Dichloroethane-d4	0.418	0.399 0.010	4.5  40.0
\$ 43 Toluene-d8	1.283	1.302   0.010	1.5 40.0
\$ 61 Bromofluorobenzene	0.524	0.522 0.010	0.4 25.0
	1 1		i

Data File: /chem/l.i/1950921.b/l264cc1.d Page 1

Report Date: 03-Oct-1995 12:28

## SPL Labs

Volatiles by 624/8240

AMOUNTS

Data file : /chem/l.i/1950921.b/1264cc1.d

Lab Smp Id: VSTD050

Inj Date : 21-SEP-1995 10:29

Operator : JC Inst ID: 1.i

Smp Info : VSTD050-8240W/1X
Misc Info : L264W1//L264CC1

Comment :

Method : /chem/l.i/l950921.b/lvoclpw.m

Als bottle: 2 Continuing Calibration Sample

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

			QUANT SIG				CAL-AMT	ON-COL	
Cor	npo	unds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)	
			====	==	=======================================	=======	======	======	
	1	Chloromethane	50.00	1.701	1.701 (0.340)	94040	250	280	
	2	Vinyl Chloride	62.00	1.799	1.799 (0.359)	78842	250	300	
	3	Bromomethane	94.00	2.013	2.013 (0.402)	50963	250	280	
	4	Chloroethane	64.00	2.075	2.075 (0.414)	46678	250	290	
	7	Trichlorofluoromethane	101.00	2.414	2.414 (0.482)	62020	250	330	
	8	Acetone	58.00	2.477	2.477 (0.494)	8535	250	210	
	11	1,1-Dichloroethene	96.00	2.842	2.842 (0.567)	44544	250	270	
	13	Methylene Chloride	84.00	3.065	3.065 (0.612)	59047	250	280	
M	18	1,2-Dichloroethene (total)	96.00		•	116253	500	520	
	14	Carbon Disulfide	76.00	3.181	3.181 (0.635)	207104	250	280	
	15	trans-1,2-Dichloroethene	96.00	3.626	3.626 (0.724)	49669	250	280	
	17	1,1-Dichloroethane	63.00	3.938	3.938 (0.786)	109897	250	260	
	19	Vinyl Acetate	43.00	4.036	4.036 (0.806)	136043	250	270	
	20	2-Butanone	43.00	4.402	4.402 (0.879)	47051	250	150	
	21	cis-1,2-Dichloroethene	96.00	4.741	4.741 (0.947)	66584	250	250	
	24	Chloroform	83.00	5.017	5.017 (1.002)	118749	250	240	
	27	1,1,1-Trichloroethane	97.00	5.810	5.810 (0.865)	86576	250	260	
	28	1,2-Dichloroethane	62.00	5.891	5.891 (1.176)	103757	250	230	
	30	Benzene	78.00	6.256	6.256 (0.931)	268146	250	250	
	31	Carbon Tetrachloride	117.00	6.283	6.283 (0.935)	74749	250	280	
	34	1,2-Dichloropropane	63.00	7.245	7.245 (1.078)	78504	250	240	
	35	Trichloroethene	130.00	7.281	7.281 (1.084)	63822	250	260	
	37	Bromodichloromethane	83.00	7.468	7.468 (1.111)	86979	250	250	
	39	2-Chloroethylvinylether	63.00	8.074	8.074 (1.202)	51425	250	260	
	40	4-Methyl-2-Pentanone	43.00	8.306	8.306 (1.236)	139858	250	250	
	41	cis-1,3-Dichloropropene	75.00	8.342	8.342 (1.241)	108945	250	260	
	42	trans-1,3-Dichloropropene	75.00	8.966	8.966 (1.334)	96134	250	270	
	44	Toluene	92.00	9.046	9.046 (0.830)	146069	250	260	
	45	1,1,2-Trichloroethane	83.00	9.135	9.135 (1.359)	50992	250	230	

Data File: /chem/l.i/1950921.b/1264cc1.d Report Date: 03-Oct-1995 12:28

							AMOUN	TS
			QUANT SIG				CAL-AMT	ON-COL
	oqmo	unds	MASS	RT	EXP RT REL RT	RESPONSE	(ng)	( ng)
==				==	2==== ======	=======	======	======
	46	2-Hexanone	43.00	9.510	9.510 (0.872)	127018	250	270
	47	Dibromochloromethane	129.00	9.759	9.759 (1.452)	62154	250	260
	49	Tetrachloroethene	164.00	10.107	10.107 (0.927)	61059	250	290
	52	Chlorobenzene	112.00	10.954	10.954 (1.005)	149592	250	250
	53	Xylene (Total)	106.00			276625	750	780
-	54	Ethylbenzene	106.00	11.257	11.257 (1.033)	73133	250	260
_	55	m,p-Xylene(s)	106.00	11.417	11.417 (1.047)	186059	500	520
	56	Bromoform	173.00	11.836	11.836 (1.086)	56924	250	320
	57	Styrene	104.00	11.890	11.890 (1.091)	153499	250	260
	59	o-Xylene	106.00	11.943	11.943 (1.096)	90566	250	250
	60	1,1,2,2-Tetrachloroethane	83.00	12.300	12.300 (1.128)	80856	250	240
	23	Bromochloromethane	128.00	5.008	5.008 (1.000)	34580	250	
*	32	1,4-Difluorobenzene	114.00	6.720	6.720 (1.000)	181594	250	
å	50	Chlorobenzene-d5	117.00	10.900	10.900 (1.000)	146649	250	
	26	1,2-Dichloroethane-d4	102.00	5.784	5.784 (1.155)	13789	250	240
\$	43	Toluene-d8	98.00	8.948	8.948 (0.821)	190956	250	250
\$	61	Bromofluorobenzene	95.00	12.585	12.585 (1.155)	76599	250	250

Data File: /chem/l.i/1950921.b/1264cc1.d

Report Date: 21-Sep-1995 10:53

# Page 3

#### SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1264cc1.d Calibration Date: 09/21/95 Calibration Time: 1029

Lab Smp Id: VSTD050 Analysis Type: VOA

Level: LOW

Sample Type: WATER

Quant Type: ISTD

Operator: JC

Method File: /chem/l.i/1950921.b/lvoclpw.m

Misc Info: L264W1//L264CC1

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	======	=======	=======	======
23 Bromochloromethane	34580	17290	69160	34580	0.00
32 1,4-Difluorobenzene	181594	90797	363188	181594	0.00
50 Chlorobenzene-d5	146649	73324	293298	146649	0.00

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene	5.01	4.51	5.51 7.22	5.01 6.72	0.00
50 Chlorobenzene-d5	10.90	10.40	11.40	10.90	0.00

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/l.i/1950921.b/1264cc1.d Date : 21-SEP-1995 10:29



# SPL BATCH QUALITY CONTROL REPORT \*\* Wisconsin DNR Modified DRO

# PHOUSTON LABORATORY

8880 INTERCHANGE DRIVE **HOUSTON, TEXAS 77054** PHONE (713) 660-0901

Matrix: Units:

Aqueous mg/L

Batch Id: HP\_T950925200500

#### LABORATORY CONTROL SAMPLE

SPIKE	Method	Spike	Blank	Spike	QC Limits(**)
COMPOUNDS	Blank Result <2>	Added <3>	Result <1>	Recovery %	(Mandatory) % Recovery Range
Diesel Range Organics	ND	5.0	4.79	95.8	50 - 150

#### MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix	Spike	Matrix Dupli	Spike cate	MS/MSD Relative %	ļ	Limits(***) (Advisory)
	<2>	<3>	Result <1>	Recovery <4>	Result		Difference		Recovery Range
DIESEL RANGE ORGANICS	ND	2.5	1.58	62.9	1.76	70.1	10.8	43	20 - 177

Analyst: SEG

Sequence Date: 09/25/95

SPL ID of sample spiked: 9509709-06B

Sample File ID: T\_\_\_225.TX0

Method Blank File ID:

Blank Spike File ID: T\_\_\_214.TX0

Matrix Spike File ID: T\_\_\_226.TX0

Matrix Spike Duplicate File ID: T\_\_227.TXO

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 10C

LCS % Recovery = (<1> / <3> ) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5> ) x 0.5] x 100

(\*\*) = Source: SPL-Temporary Limits

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH(SPL ID):

9509709-01B 9509709-03B 9509709-04B 9509709-06B

9509709-09B

oftware Version: 3.2 <16C2O>

Sample Name : 100 PPM

Sample Number:

Time : 09/25/95 17:39

Study : DROW

perator : SEG

Instrument : HP\_T

: HP\_T

Channel: A A/D mV Range: 1000

AutoSampler : HP 7673A

ack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 09/25/95 17:11

Delay Time : 0.50 min. End Time : 28.25 min. ampling Rate : 1.0000 pts/sec

Raw Data File : L:\data\tchrom\pest\hp\_t\T\_\_217.raw
Result File : L:\data\tchrom\pest\hp\_t\T\_\_217.rst
Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins
rocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Jample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

nj. Volume : 1 ul ample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

# 910<u>5</u>

# Area/Concentration Report

eak #	Ret Time [min]	Area [uV-sec]	Height B [uV]	Area/ Amount	RF	VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 2 3 4 5 6 7 8 9 10	2.799 4.893 5.094 6.544 7.865 9.052 9.973 10.131 11.116 12.021 12.859	201991.50 88480.97 129840.88 218031.75 221492.50 222631.33 1507.00 219373.63 208937.00 176548.00 157853.00	25577.33 E 12705.11 E 5277.28 V 11940.67 V 18088.40 V 24184.46 E 195.18 E 29128.25 V 32852.39 E 34043.29 E 32577.18 E	4.9999e5 4.9999e5 5.0000e5 1778.5000 4.9999e5 1778.5000 5.0000e5 1883.5000 8 5.0000e5		0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066	93.5514 93.5514 93.5514 93.5514 93.5514 93.5514 93.5514 93.5514 93.5514	2-FLUOROBIPHENYL Total Petroleum Hydr o-Terphenyl	0.4040 0.1770 0.2597 0.4361 124.5389 0.4453 0.8473 0.4388 110.9302 0.3531 0.3157	
		1846687.63	226569.53		· ·	5.5725	1029.0648		239.1460	

roup Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.865 11.116	221492.50 208937.00	18088.40 BB 32852.39 BB		0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	124.5389 110.9302	
		430429 50	50040 70		1 0132	43 6103		235 . 4691	

END

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_217.TX0

0.5453

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Chromatogram Page 1 of 1 Sample Name: 100 PPM Sample #: Date: 09/25/95 17:39 : l:\data\tchrom\pest\hp\_t\T\_\_\_217.raw FileName Time of Injection: 09/25/95 17:11 Method : DIESELT.ins Low Point : -23.79 mV Plot Scale: 1024 mV End Time : 28.25 min High Point : 1000.00 mV Start Time : 0.50 min Scale Factor: 1 Plot Offset: -24 mV -12.02 -12.86 <sub>=</sub>4.89 -7.86 -9.05-2.80 -6.54-9.97 Response [mV] +CB -FLUOROB4 abla

50

18

Time [min]

oftware Version: 3.2 <16C2O>

Sample Name : 375 PPM

: 09/25/95 18:14 Time Study

Sample Number:

: DROW

berator : SEG

Thstrument : HP\_T AutoSampler : HP 7673A

A/D mV Range : 1000 Channel : A

: 0/0 pck/Vial

hterface Serial # : 4118271220 Data Acquisition Time: 09/25/95 17:46

Delay Time : 0.50 min. End Time : 28.25 min. ampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_218.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_218.rst nstrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins rocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.Prc
ample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

nj. Volume : 1 ul ample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

# Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALU	JE	DIESEL AMT.	, Component Name	Raw Amount	
₽;-	2.794	825427.63	1/5/57 25		4.9999e5	0.50	166	384.8160		1.6509	
2	3.646	26218.00			. 5.0000e5	0.50				0.0524	
<b>-</b> 2	4.620	2912.50	518.40		5.0000e5	0.5		384.8160		0.0058	
2	4.885	689071.00			5.0000e5	0.5				1.3781	
3 4 5	5.067	174721.00	6496.06		5.0000e5	0.5				0.3494	
		4850.39	714.27		4.9999e5	0.5				0.0097	
_ 6 7	6.120	5799.66	930.27		5.0000e5	0.5				0.0116	
<b>.</b>	6.263				5.0000e5	0.5				1.7610	
8 9	6.479	880477.38			5.0000e5	0.5			•	0.0087	
	7.643	4335.05	785.26			0.5			2-FLUOROBIPHENYL	503.2959	
10	7.832	895111.69			1778.5000					0.0055	
11	8.861	2755.00			5.0000e5	0.50				1.7965	
2	9.030	898252.00			5.0000e5	0.5				2.2873	
13	9.963	4067.88			1778.5000					1.7521	
14	10.114	876069.63			5.0000e5	0.5				0.0053	•
15	10.787	2667.00			5.0000e5	0.5					
6 17	10.980	1534.41	370.90		5.0000e5	0.5				0.0031	
	11.102	840893.50			1883.5000	0.5					
18	11.882	1515.61	389.69	ΒV	5.0000e5	0.5	066			0.0030	
19	12.012	769286.38	212012.06	٧B	5.0000e5	0.5	066	384.8160		1.5386	
20	12.732	2045.02	532.53	BB	5.0000e5	0.5	066	384.8160		0.0041	
20 21	12.851	688191.00	204959.41	ВВ	5.0000e5	0.5	066	384.8160		1.3764	
<b></b>		7596201.50	1.61e6			10.6	384	8081.1348		963.7481	

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oup Report For : SURROGATES

	Peak #	Ret Time [min]	Area [uV-sec]	Height B [uV]	L Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
į	1	7.832 11.102		158628.27 B 222630.11 V	E 1778.5000 B 1883.5000	0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	503.2959 446.4526	
1			1736005.25	381258.38		1.0132	175.8886		949.7485	

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eport Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_218.TXO

#### Chromatogram

Sample Name: 375 PPM

: l:\data\tchrom\pest\hp\_t\T\_\_218.raw FileName

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor:

End Time : 28.25 min

Plot Offset: -24 mV

Sample #:

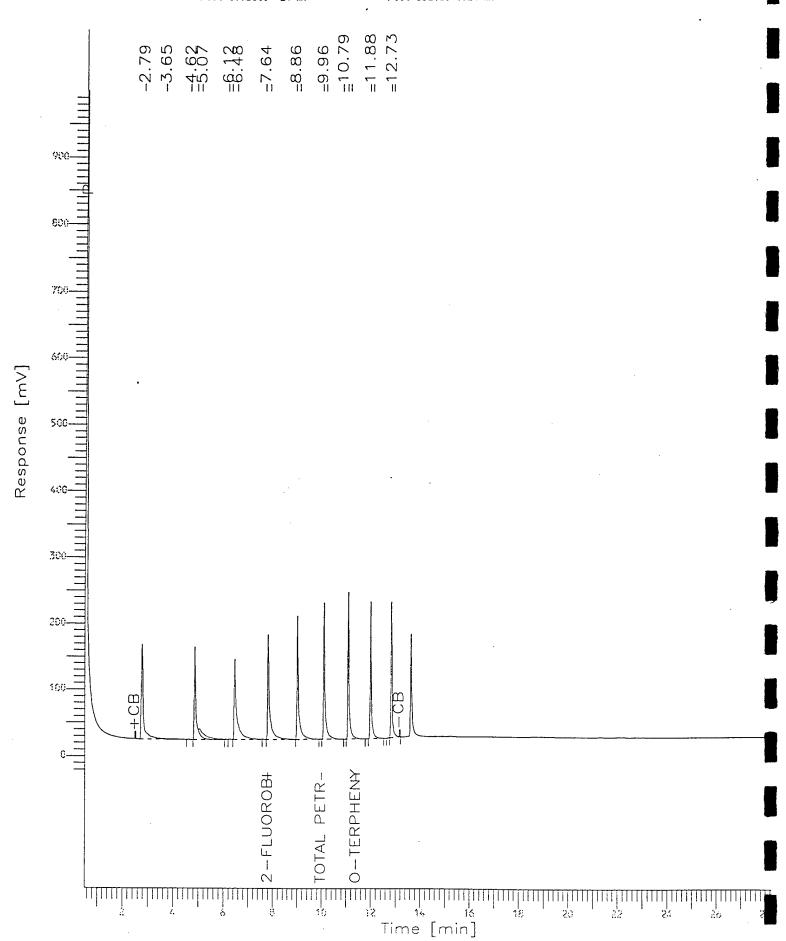
Date: 09/25/95 18:14

Time of Injection: 09/25/95 17:46

High Point: 1000.00 mV

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Low Point : -23.47 mV Plot Scale: 1024 mV



oftware Version: 3.2 <16C20>

Sample Name: 500 PPM Time : 09/25/95 18:49

Sample Number:

Study : DROW

perator : SEG

Channel: A A/D mV Range: 1000

0.590,86

instrument : HP\_T AutoSampler : HP 7673A Rack/Vial : 0/0

nterface Serial # : 4118271220 Data Acquisition Time: 09/25/95 18:21

Delay Time : 0.50 min. End Time : 28.25 min. ampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_219.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_219.rst instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins rocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc lample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

nj. Volume : 1 ul ample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

## Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]			RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1	2.794	1126503.88	207492.02	BE	5.0000e5	0.5066	478.0424		2.2530	
2	3.644	30873.00			5.0000e5	0.5066			0.0618	
3	4.466	2352.50			4.9999e5	0.5066			0.0047	
4 5	4.621	4266.59	757.08	VB	5.0000e5	0.5066			0.0085	
5	4.884	975437.75			5.0000e5	0.5066			1.9509	
6	5.065	202240.00	8095.34	E۷	5.0000e5	0.5066			0.4045	
7	6.116	6701.39	906.60	٧٧	5.0000e5	0.5066			0.0134	
8	6.262	7469.28			5.0000e5	0.5066		₹	0.0149	
8 9	6.475	1187431.50	195921.88	W	5.0000e5	0.5066			2.3749	
10	7.641	5108.00	1048.97	W	5.0000e5	0.5066			0.0102	
_11	7.830	1188302.63	234284.78	VΕ	1778.5000	0.5066	478.0424	2-FLUOROBIPHENYL	668.1488	*
12	8.861	2706.00	347.44	ΕB	4.9999e5	0.5066	478.0424		0.0054	
13	9.029	1161009.50	262200.28	ΒV	4.9999e5	0.5066	478.0424		2.3220	
:4	9.963	5259.31	1624.35	٧V	1778.5000	0.5066	478.0424	Total Petroleum Hydr	2.9572	
<b>:5</b>	10.113	1091060.50	270987.56	٧V	5.0000e5	0.5066		,	2.1821	
16	10.788	2313.61	449.97	VB	4.9999e5	0.5066	478.0424		0.0046	
17	10.996	3877.84	1002.52	ΒV	5.0000e5	0.5066	478.0424		0.0078	
18	11.101	953980.13	257778.72	VB	1883.5000	0.5066	478.0424	o-Terphenyl	506.4933	
19	11.893	3214.30	767.62	ΒV	5.0000e5	0.5066	478.0424		0.0064	
20	12.012	781231.63	215061.88	VB	5.0000e5	0.5066	478.0424		1.5625	
21	12.733	2385.00	747.58	BB	5.0000e5	0.5066	478.0424		0.0048	
22	12.851	692749.50	205209.59	BB		0.5066	478.0424		1.3855	
		9436474.00	2.08e6			11.1450	10516.9316		1192 1773	

roup Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	7.830 11.101		234284.78 BE 257778.72 VB				2-FLUOROBIPHENYL o-Terphenyl	668.1488 506.4933	
3		2142282.75	492063.50		1.0132	217.0518		1174.6421	

#### Chromatogram

Sample Name: 500 PPM

: l:\data\tchrom\pest\hp\_t\T\_\_219.raw FileName

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor:

End Time : 28.25 min Plot Offset: -23 mV

Sample #:

Date: 09/25/95 18:49

Time of Injection: 09/25/95

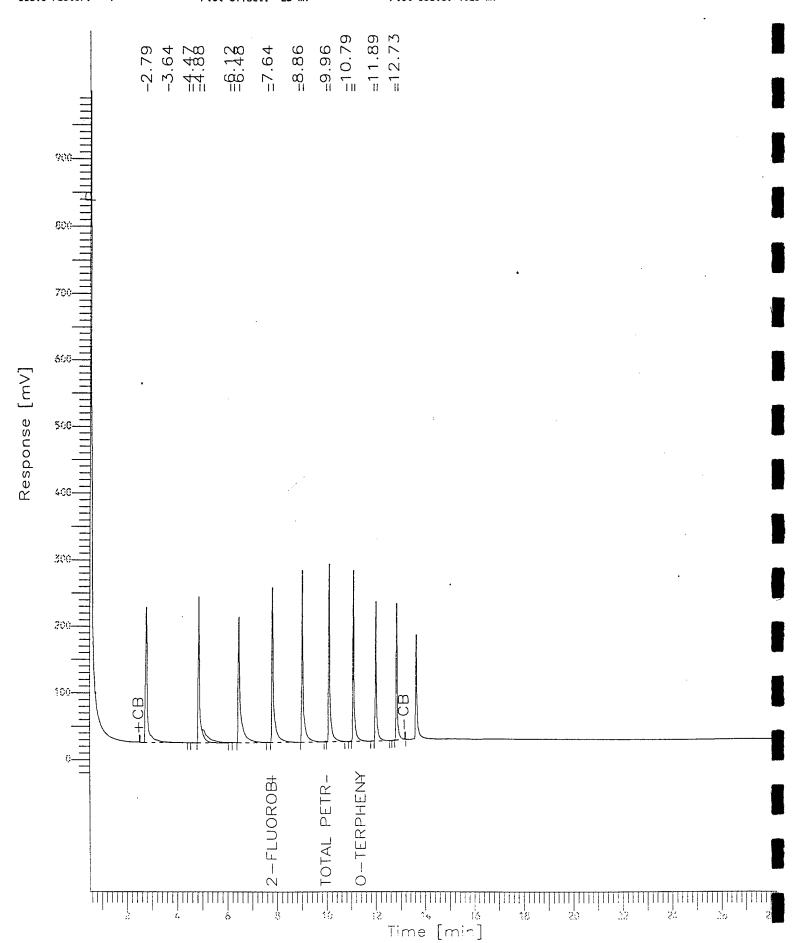
Low Point : -22.87 mV

High Point: 1000.00 mV

18:21

Page 1 of 1

Plot Scale: 1023 mV



oftware Version: 3.2 <16C2O>

: 09/25/95 19:24 Sample Name : 750 PPM Time

Sample Number:

: DROW Study

berator : SEG

A/D mV Range: 1000 Channel: A

o. yston

Instrument : HP\_T AutoSampler : HP 7673A ack/Vial : 0/0

hterface Serial # : 4118271220 Data Acquisition Time: 09/25/95 18:56

Delay Time : 0.50 min. End Time : 28.25 min. ampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_220.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_220.rst hstrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins rocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

hj. Volume : 1 ul ample Amount : 1.0000

: 100.00 Area Reject Dilution Factor : 1.00

## Area/Concentration Report

eak #	Ret Time (min)	Area [uV-sec]	Height [uV]			RF	VALUE	DIESEL AMT. PPM	Name	Raw Amount	
1	2.792	1759545.75	351079.66	BE	5.0000e5		0.5066	784.9421	4	3.5191	
2	3.637	36214.00			4.9999e5		0.5066	784.9421		0.0724	
3	4.470	3699.25		VV	5.0000e5		0.5066	784.9421		0.0074	
4	4.618	6707.00			5.0000e5		0.5066	784.9421		0.0134	
4 5	4.883	1585585.75			5.0000e5		0.5066	784.9421	4	3.1712	
6	5.059	234746.00			5.0000e5		0.5066	784.9421		0.4695	
7	6.115	8776.25			4.9999e5		0.5066	784.9421		0.0176	
8		10807.00	2250.95	W	5.0000e5		0.5066	784.9421	1	0.0216	
8 9	6.471	1818237.75		VE	5.0000e5		0.5066	784.9421		3.6365	
10	7.496	12693.00			5.0000e5		0.5066	784.9421			
11	7.636	6115.25	1549.36	٧V	5.0000e5		0.5066	784.9421		0.0122	•
12	7.824	1839850.00	445499.59	٧V	1778.5000		0.5066	784.9421	2-FLUOROBIPHENYL		
13	8.856	2032.75	657.31	W	5.0000e5		0.5066	784.9421		0.0041	
14	9.024	1816230.25	484538.69	٧V	5.0000e5		0.5066	784.9421		3.6325	
15	9.769	3530.00	548.33	VB	5.0000e5		0.5066	784.9421		0.0071	
16	9.960	11405.67	3016.92	ΒV	1778.5000		0.5066	784.9421	Total Petroleum Hydr		
17	10.109	1758017.63	495921.00	VV	5.0000e5		0.5066	784.9421		3.5160	
18	10.791	2503.27	493.65	٧B	5.0000e5		0.5066	784.9421		0.0050	
19	10.983	13244.70	2793.49	ΒV	5.0000e5		0.5066	784.9421		0.0265	
20	11.099	1637878.25	514132.91	VΒ	1883.5000		0.5066	784.9421	o-Terphenyl	869.5929	
20 21	11.886	10109.20	2236.90	ΒV	5.0000e5		0.5066	784.9421		0.0202	
<b>D</b> 2	12.008	1517734.75	477946.56	VB	5.0000e5		0.5066	784.9421		3.0355	
23	12.730	7460.52	2226.07	88	5.0000e5		0.5066	784.9421		0.0149	
24	12.848	1391497.50	469206.56	88	5.0000e5		0.5066	784.9421	o-Terphenyl	2.7830	
		15494622.00	4.07e6				12.1582			1934.5123	

# roup Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF V	ALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	7.824 11.099	1839850.00 1637878.25				-	.5066 .5066		2-FLUOROBIPHENYL o-Terphenyl	1034.4954 869.5929	
		3477728.25	959632.50	 )		1	.0132	352.3565		1904.0883	

END

#### Chromatogram

Sample Name: 750 PPM

FileName : l:\data\tchrom\pest\hp\_t\T\_

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor:

End Time : 28.25 min Plot Offset: -22 mV

Sample #:

Date: 09/25/95 19:24

Time of Injection: 09/25/95

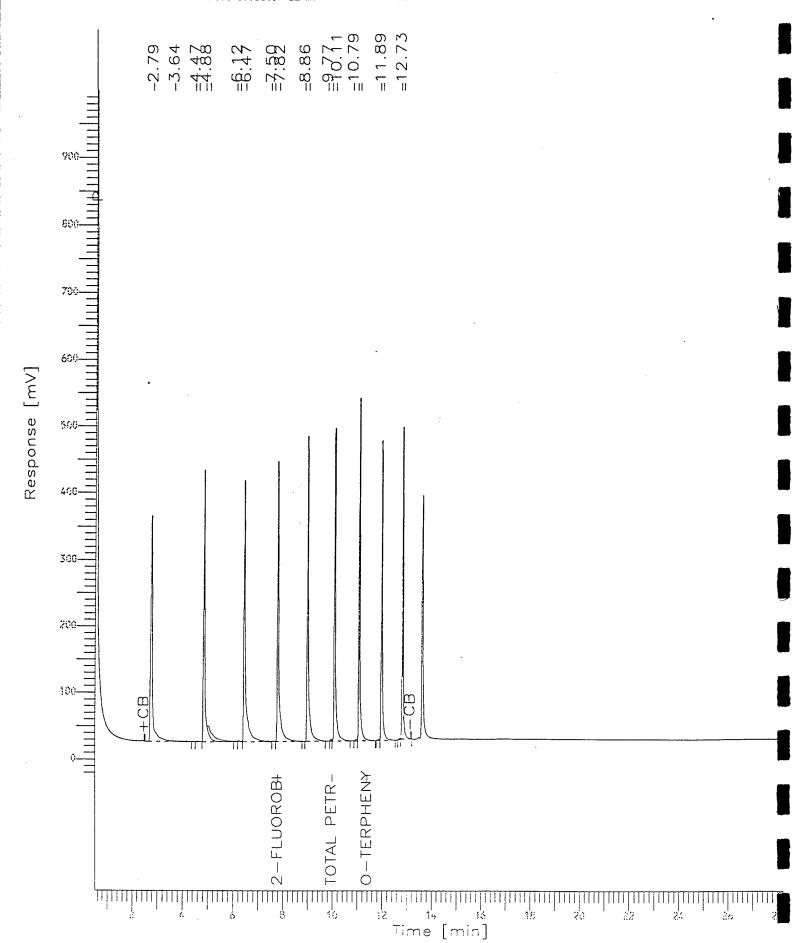
Low Point : -21.98 mV

High Point: 1000.00 mV

18:56

Page 1 of 1

Plot Scale: 1022 mV



oftware Version: 3.2 <16C2O>

Sample Name : 1000 PPM

Time : 09/25/95 19:59

Sample Number:

Study : DROW

perator : SEG

Instrument : HP\_T

\_T Chan

Channel: A A/D mV Range: 1000
Acquisition Time: 09/25/95 19:31

AutoSampler : HP 7673A

Interface Serial #: 4118271220 Data Acquisition Time: 09/25/95 19:31

Delay Time : 0.50 min. End Time : 28.25 min. Ampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_221.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_221.rst
Instrument File: L:\DATA\TCHROM\PEST\METHOD:\DIESELT.ins
Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.pro
Cample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

nj. Volume : 1 ul ample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

# Area/Concentration Report

eak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL A	AMT.	Component Name	Raw Amount	
1	2.792	2352879.50	489679.66	BE	5.0000e5		0.5066	1075.29	926		4.7058	
2	3.633	41880.00	1230.46	E۷	5.0000e5		0.5066	1075.29	726		0.0838	
2 3	4.468	5032.00	688.05	W	5.0000e5		0.5066	1075.29	726		0.0101	
4	4.616	8665.56	1786.54		5.0000e5		0.5066	1075.29	726		0.0173	
<del></del> 5	4.882	2166557.50	599881.31	BE	5.0000e5		0.5066	1075.29	726		4.3331	
6	5.058	269528.00	12544.69	E۷	5.0000e5		0.5066	1075.29	926		0.5391	
7 8 9	6.116	15670.50	1673.55	W	4.9999e5		0.5066	1075.29	726		0.0313	
8	6.255	14640.59	3133.67	W	5.0000e5		0.5066	1075.29	726	i .	0.0293	
9	6.470	2425601.25	601746.50	VΕ	5.0000e5		0.5066	1075.29	726		4.8512	
10	7.494	14457.00	965.08	E۷	5.0000e5		0.5066	1075.29	726		0.0289	
11	7.635	7817.64	2081.69	W	4.9999e5		0.5066	1075.29	726		0.0156	•
12	7.822	2407556.00	641235.56	W	1778.5000		0.5066	1075.29	726	2-FLUOROBIPHENYL	1353.7003	
13	8.855	2638.48	864.63	W	5.0000e5		0.5066	1075.29	726		0.0053	
14	9.023	2327117.00	670534.44	W	5.0000e5		0.5066	1075.29	726		4.6542	
15	9.782	3960.06	585.05	W	5.0000e5		0.5066	1075.29	726		0.0079	
16	9.958	11924.89	4066.80		1778.5000		0.5066	1075.29	726	Total Petroleum Hydr	6.7050	
17 18	10.108	2255542.00	687222.56	V۷	5.0000e5		0.5066	1075.29	926		4.5111	
18	10.614	6251.63	1186.46	W	5.0000e5		0.5066	1075.29	726		0.0125	
19	10.790	2836.88	584.74	V8	5.0000e5		0.5066				0.0057	
20	10.985	15084.28	3152.04	ΒV	5.0000e5		0.5066	1075.29			0.0302	
21 22	11.098	2251882.75	747760.81	٧B	1883.5001		0.5066	1075.29	726	o-Terphenyl	1195.5841	
22	11.890	11942.59	2611.98	BV	5.0000e5		0.5066	1075.29	726		0.0239	
23	12.007	2300091.50	775153.13	VB	5.0000e5		0.5066	1075.29	726		4.6002	
24	12.733	8995.53	2897.22	BB	5.0000e5		0.5066	1075.29	726		0.0180	
24 25	12.850	2297537.00	833230.13	ВВ	4.9999e5		0.5066	1075.29	926		4.5951	
		21226092.00	6.08e6			,	12.6648	26882.32	203		2589.0989	

#### roup Report For : SURROGATES

Pea	ak Ret Time # [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
		2407556.00 2251882.75				0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	1353.7003 1195.5841	
		4659439.00	1.38e6			1.0132	472.0851		2549.2844	

END

Chromatogram

Sample Name: 1000 PPM

: l:\data\tchrom\pest\hp\_t\T\_\_221.raw FileName

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor:

End Time : 28.25 min Plot Offset: -22 mV

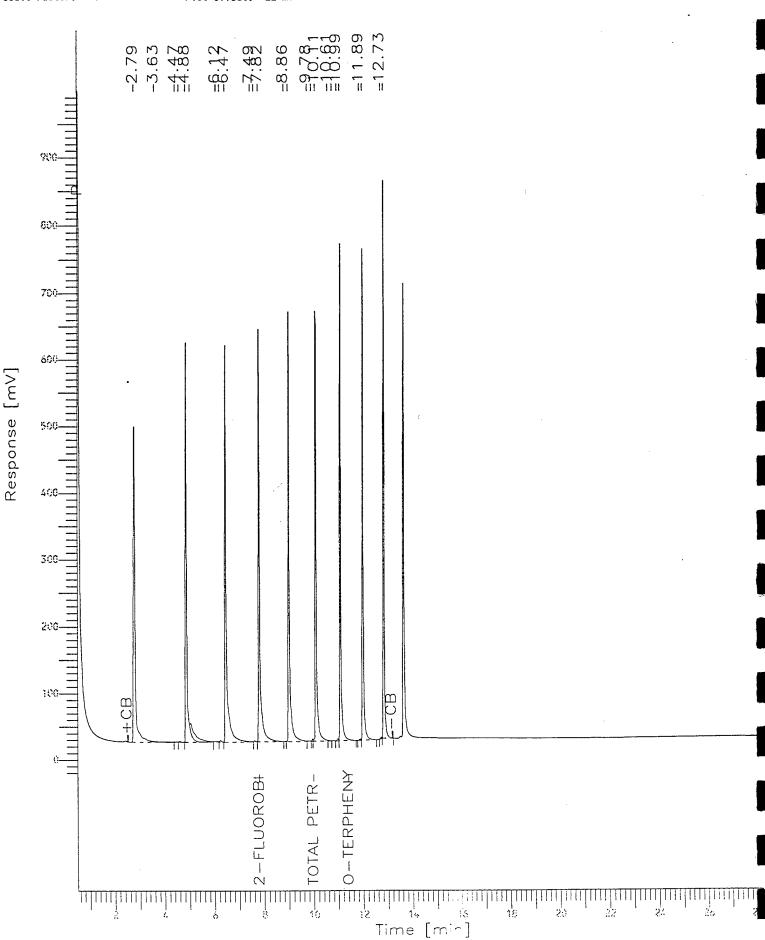
Sample #: Date: 09/25/95 19:59

Time of Injection: 09/25/95 19:31

High Point: 1000.00 mV

Page 1 of 1

Low Point: -21.54 mV Plot Scale: 1022 mV



oftware Version: 3.2 <16C2O>

Sample Name : 950921CLB1 Time : 09/23/95 13:21 : MODWD Study

perator : APM/LT

A/D mV Range: 1000 Channel: A

Instrument : HP\_T
AutoSampler : HP 7673A
Cack/Vial : 0/0 ack/Vial

nterface Serial # : 4118271220 Data Acquisition Time: 09/23/95 12:53

Delay Time : 0.50 min. End Time : 28.25 min. ampling Rate : 1.0000 pts/sec

Blx/LCS

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_\_213.raw Result File : l:\data\tchrom\pest\hp\_t\T\_\_213.rst nstrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins rocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
ample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

nj. Volume : 1 ul ample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

## Area/Concentration Report

eak #	Ret Time [min]	Area [uV-sec]	Height B [uV]	L Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1	2.934	3041.81	422.34 B	v 5.0000e5	0.5066	11.4089		0.0061	
2	3.143	6845.88	1328.19 V	v 5.0000e5	0.5066	11.4089		0.0137	
3	3.422	6479.25	727.84 V	v 5.0000e5	0.5066	11.4089		0.0130	
4	3.596	8262.81	612.97 V	v 5.0000e5	0.5066	11.4089		0.0165	
5	3.939	9040.88	596.42 V	v 4.9999e5	0.5066	11.4089		0.0181	
6	4.513	1655.38	157.57 V	'B 5.0000e5	0.5066	11.4089		0.0033	
7	4.868	2172.22	252.16 B	v 5.0000e5	0.5066	11.4089		0.0043	
8	5.116	5437.63	256.95 V	v 5.0000e5	0.5066	11.4089	4	0.0109	
9	5.857	1564.13	178.17 V	B 5.0000e5	0.5066	11.4089		0.0031	
10	6.393	458.34	72.24 B	v 5.0000e5	0.5066	11.4089		0.0009	
11	6.585	1394.19	170.76 V	/B 5.0000e5	0.5066	11.4089		0.0028	•
12	7.262	1232.00	110.53 B	B 5.0000e5	0.5066	11.4089		0.0025	
13	7.574	70225.83	3836.90 B	E 1778.4999	0.5066	11.4089	2-FLUOROBIPHENYL	39.4860	
14	8.486	1803.00	147.82 E	v 5.0000e5	0.5066	11.4089		0.0036	
15	8.616	890.09	130.04 V	/B 5.0000e5	0.5066			0.0018	
16	9.384	354.00	34.71 E	3B 5.0000e5	0.5066	11.4089		0.0007	
17	9.764	1094.00	268.04 B	BB 1778.5000	0.5066			0.6151	
18	11.054	103259.00	30999.96 E	3B 1883.5000	0.5066	11.4089	o-Terphenyl	54.8229	
 1		225210.42	40303.61		9.1186	205.3608		95.0253	

Group Report For : SURROGATES

	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	7.574 11.054	70225.83 103259.00	3836.90 BE 30999.96 BB				2-FLUOROBIPHENYL o-Terphenyl	39.4860 54.8229	
		173484.83	34836.87		1.0132	17.5771		94.3089	

eport Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_\_213.TX0

Chromatogram

Sample Name :

: 9509910xBl : !:\data\tchrom\pest\hp\_t\T\_\_213.raw FileName

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor: 1

End Time : 28.25 min Plot Offset: -19 mV

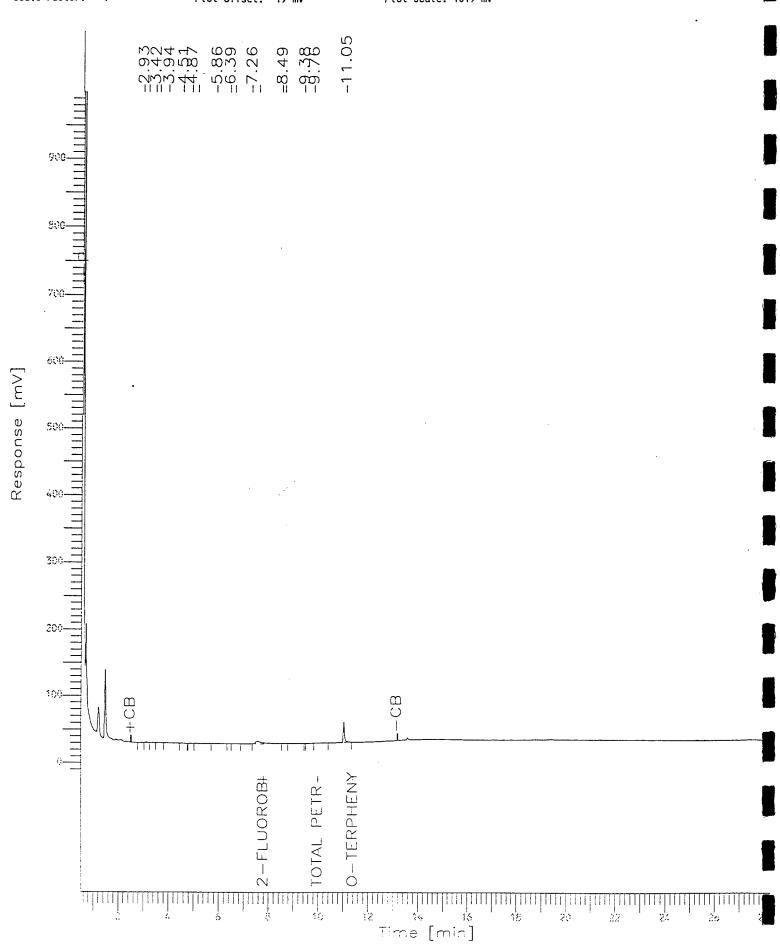
Sample #: Date: 09/23/95 13:21

Time of Injection: 09/23/95 12:53

High Point: 1000.00 mV

Page 1 of 1

Low Point : -18.72 mV Plot Scale: 1019 mV



Software Version: 3.2 <16C2O>

Sample Name : 9509210 XLCS

Time : 09/23/95 13:56 Study : MODWD

Operator : APM/LT

: APM/LI

Channel: A A/D mV Range: 1000

instrument : HP\_T AutoSampler : HP\_7673A Rack/Vial : 0/0

nterface Serial # : 4118271220 Data Acquisition Time: 09/23/95 13:28

Delay Time : 0.50 min. End Time : 28.25 min. Campling Rate : 1.0000 pts/sec

Raw Data File : L:\data\tchrom\pest\hp\_t\T\_214.raw
Result File : L:\data\tchrom\pest\hp\_t\T\_214.rst
Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins
Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Tample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

nj. Volume : 1 ul ample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00

# Area/Concentration Report

eak #	Ret Time [min]	[uV-sec]	[uV]		Area/ Amount		1 1 14	. Component Name	Raw Amount
1	2.805		24792.67		5.0000e5		2399.3809		0.3021
_ 2	3.002	70340.50			5.0000e5		2399.3809		0.1407
3	3.217	35534.17			4.9999e5	0.5066	2399.3809		0.0711
4	3.316	103766.88			5.0000e5		2399.3809		0.2075
<b>—</b> 5	3.492	117472.94			5.0000e5		2399.3809		0.2350
5	3.593	88553.98	19355.00	W	4.9999e5		2399.3809		0.1771
7	3.686	74646.70			5.0000e5		2399.3809		0.1493
8	3.821	56805.80		W	5.0000e5		2399.3809	(	0.1136
9	3.938	430525.66	78495.47	W	5.0000e5		2399.3809		0.8611
10	4.118	153389.81	21235.96	٧V	5.0000e5		2399.3809		0.3068
<b>1</b> 1	4.273	97051.39	21940.49	٧V	5.0000e5		2399.3809		0.1941
†2	4.331		21615.48		5.0000e5		2399.3809		0.1834
13	4.464		34073.60		5.0000e5	0.5066	2399.3809		0.3827
14	4.562	253393.63	38551.23	W	5.0000e5	0.5066	2399.3809		0.5068
15	4.668	95368.09	25777.75	VV	5.0000e5		2399.3809		0.1907
16 17	4.749 4.886	182997.64	29333.39	VV	5.0000e5		2399.3809		0.3660
18	5.082	175007 70	118453.63	VV	4.9999e5		2399.3809		1.6558
19	5.194	159793.30	31733.43 34600.71	VV	5.0000e5		2399.3809		0.3520
20	5.391	130491.04	72754.56	VV	5.0000e5		2399.3809		0.3170
21	5.466		77564.68		4.9999e5		2399.3809		1.2569
22	5.716	1009190.00			5.0000e5		2399.3809 2399.3809		0.8508
20 21 22 23	5.818	37/317 00	86459.89	V V	5.0000e5 5.0000e5		2399.3809		2.0184
24	5.931	199351 30	43356.89	W	5.0000e5		2399.3809		0.7486
25	6.023	304924 59	76544.36	W	4.9999e5		2399.3809		0.3987 0.6099
26	6.090	361348.81	78176.77	W	5.0000e5		2399.3809		0.7227
25 26 27	6.164	313453.00	87956.63	VV	5.0000e5		2399.3809		0.6269
28	6.239	646624.81	96613.06	vv	5.0000e5		2399,3809		1.2933
29	6.472	1862942.25	302710.53	νν	5.0000e5		2399.3809		3.7259
29 50	6.659		59429.21		5.0000e5		2399.3809		0.3505
<b>5</b> 1	6.790	1251150.75	165689.28	VV	5.0000e5		2399.3809		2.5023
32	6.902	952950.13	190909.59	٧V	5.0000e5	0.5066	2399.3809		1.9059
33 84 35	7.050	405950.84	112669.52	٧٧	5.0000e5	0.5066	2399.3809		0.8119
84	7.168	2118157.25	327541.03	V۷	5.0000e5		2399.3809		4.2363
35	7.384	426597.81	92586.81	VV	5.0000e5	0.5066	2399.3809		0.8532
	7.466		178445.41		5.0000e5	0.5066	2399.3809		1.9318
37	7.547		132509.42		5.0000e5	0.5066	2399.3809		0.9693
58 .9 .0	7.622	886493.38	165487.23	V۷	5.0000e5	0.5066	2399.3809	8	1.7730
.9	7.716		146959.97		5.0000e5		2399.3809		1.3171
	7.823	2014179.00			1778.5000	0.5066	2399.3809	2-FLUOROB1PHENYL	1132.5156
41 72	7.969		124420.60		5.0000e5		2399.3809		1.1751
7	8.048	1269386.00			4.9999e5		2399.3809		2.5388
2 43 44	8.168 8.245		142411.84		5.0000e5		2399.3809		1.2536
45	8.363	1498599.25	116852.96		5.0000e5		2399.3809		0.6827
46	8.436	2307935.50			5.0000e5		2399.3809		2.9972
7.7	8.675	1184455.50			5.0000e5 5.0000e5		2399.3809		4.6159
48	8.788	1186520.00			5.0000e5		2399.3809 2399.3809		2.3689
49	9.019	2684418.00			5.0000e5		2399.3809		2.3730
		2007770100	5,1505.22	• •	2.000023	0.7000	2377.3009		5.3688

50	9.164	649899,13	136662.70 VV	5.0000e5	0.5066	2399.3809		1.2998	
51	9.284	1443725.50	149536.47 VV	5.0000e5	0.5066	2399.3809		2.8875	
52	9.429	848147.13	140392.67 VV	4.9999e5	0.5066	2399.3809		1.6963	
53	9.580	1631343.38	310811.41 VV	5.0000e5	0.5066	2399.3809		3.2627	
54	9.704	407257.97	102581.21 VV	5.0000e5	0.5066	2399.3809		0.8145	
55	9.776	758943.13	115909.06 VV	5.0000e5	0.5066	2399.3809		1.5179	
- 56	9.903	1408073.38	149664.14 VV	1778.4999	0.5066	2399.3809	Total Petroleum Hydr	791.7197	
57	10.108	1430119.38	240110.55 VV	5.0000e5	0.5066	2399.3809		2.8602	
58	10.281	504574.63	90758.37 VV	5.0000e5	0.5066	2399.3809		1.0092	
59	10.400	545076.31	100165.07 VV	5.0000e5	0.5066	2399.3809		1.0902	
60	10.461	460320.31	97661.60 VV	5.0000e5	0.5066	2399.3809		0.9206	
61	10.554	292535.28	103135.88 VV	5.0000e5	0.5066	2399.3809		0.5851	
62	10.616	1031515.50	170393.88 VV	5.0000e5	0.5066	2399.3809		2.0630	
63	10.782	466942.50	71526.45 VV	5.0000e5	0.5066	2399.3809		0.9339	
64	10.899	402999.19	74747.79 VV	5.0000e5	0.5066	2399.3809		0.8060	
65	11.102	1394563.38	115767.36 VV	5.0000e5	0.5066	2399.3809		2.7891	
66	11.314	692301.56	53908.85 VV	1883.5000	0.5066	2399.3809	o-Terphenyl	367.5612	
67	11.568	374162.19	52927.26 VV	5.0000e5	0.5066	2399.3809		0.7483	
68	11.697	223762.44	36604.54 VV	5.0000e5	0.5066	2399.3809		0.4475	
69	11.832	338672.28	36520.78 VV	5.0000e5	0.5066	2399.3809		0.6773	
70	12.015	303033.06	25575.67 VV	5.0000e5	0.5066	2399.3809		0.6061	
71	12.327	88914.91	12568.07 VV	5.0000e5	0.5066	2399.3809		0.1778	
72	12.446	61264.97	9789.08 VV	5.0000e5	0.5066	2399.3809		0.1225	
73	12.565	80014.44	7624.76 VV	5.0000e5	0.5066	2399.3809		0.1600	
74	12.866	14117.00	2014.71 VB	5.0000e5	0.5066	2399.3809		0.0282	
75	13.086	1926.97	287.15 BB	5.0000e5	0.5066	2399.3809		0.0039	
		47363368.00	8.10e6		37.9943	1.7995e5		2378.2942	

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	7.823 11.314	2014179.00 692301.56				0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	1132.5156 367.5612	
		2706480.50	511956.66			1.013	2 274.2152		1500.0769	

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_214.TX0

#### Chromatogram

Sample Name :

: 950931CXLCS : l:\data\tchrom\pest\hp\_t\T\_\_214.raw FileName

: DIESELT.ins

tart Time : 0.50 min cale Factor:

End Time : 28.25 min Plot Offset: -15 mV

Sample #:

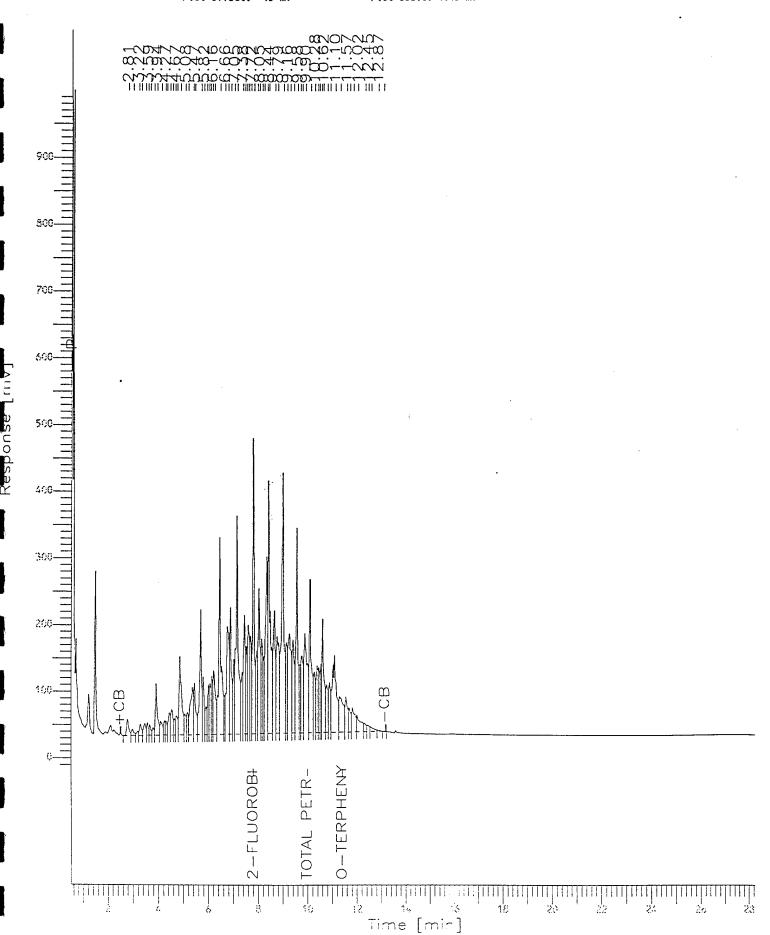
Date: 09/23/95 13:56

Time of Injection: 09/23/95 13:28

Low Point : -14.92 mV Plot Scale: 1015 mV

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High Point: 1000.00 mV



Software Version: 3.2 <16C20>

Sample Name : 950921CKB1 : 09/23/95 13:21 Time

: MODWD Study

: APM/LT Operator

A/D mV Range : 1000 Channel: A

Instrument : HP\_T AutoSampler : HP\_7673A : 0/0 Rack/Vial

Interface Serial #: 4118271220 Data Acquisition Time: 09/23/95 12:53

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_\_213.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_\_213.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject

: 100.00

Dilution Factor : 1.00

# Area/Concentration Report

Peak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF	VALUE	DIESEL AMT.	Component Name	Raw Amount	
1	2.934	3041.81	422.34 BV	5.0000e5		0.5066	11.4089		0.0061	
2	3.143	6845.88	1328.19 VV	5.0000e5		0.5066			0.0137	
3	3.422	6479.25	727.84 VV	5.0000e5		0.5066			0.0130	
4	3.596	8262.81	612.97 VV			0.5066			0.0165	
5	3.939	9040.88	596.42 VV	4.9999e5		0.5066			0.0181	
6	4.513	1655.38	157.57 VB	5.0000e5		0.5066			0.0033	
7	4.868	2172.22	252.16 BV	5.0000e5		0.5066	11.4089		0.0043	
8	5.116	5437.63	256.95 VV	5.0000e5		0.5066	11.4089		0.0109	
9	5.857	1564.13	178.17 VB	5.0000e5		0.5066	11.4089		0.0031	
10	6.393	458.34	72.24 BV	5.0000e5		0.5066	11.4089		0.0009	
11	6.585	1394.19	170.76 VB	5.0000e5		0.5066	11.4089		0.0028	•
12	7.262	1232.00	110.53 BB	5.0000e5		0.5066	11.4089		0.0025	
13	7.574	70225.83	3836.90 BE	1778.4999		0.5066	11.4089	2-FLUOROBIPHENYL	39.4860	
14	8.486	1803.00	147.82 EV	5.0000e5		0.5066	11.4089		0.0036	
15	8.616	890.09	130.04 VB	5.0000e5		0.5066	11.4089		0.0018	
16	9.384	354.00	34.71 BB	5.0000e5		0.5066	11.4089		0.0007	
17	9.764	1094.00	268.04 BB	1778.5000		0.5066	11.4089	Total Petroleum Hydr	0.6151	
18	11.054	103259.00	30999.96 BB	1883.5000		0.5066	11.4089	o-Terphenyl	54.8229	
	•	225210.42	40303.61			9.1186	205.3608		95.0253	

Group Report For : SURROGATES

Pea #	k Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1	7.574 3 11.054	70225.83 103259.00	3836.90 BE 30999.96 BB	1778.4999 1883.5000	0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	39.4860 54.8229	
•••		173484.83	34836.87		1.0132	17.5771		94.3089	

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_213.TX0

Chromatogram

Sample Name :

: 9509010xB1 : l:\data\tchrom\pest\hp\_t\T\_\_213.raw FileName

ethod : DIESELT.ins

tart Time : 0.50 min cale Factor:

End Time : 28.25 min Plot Offset: -19 mV

Sample #: Date: 09/23/95 13:21

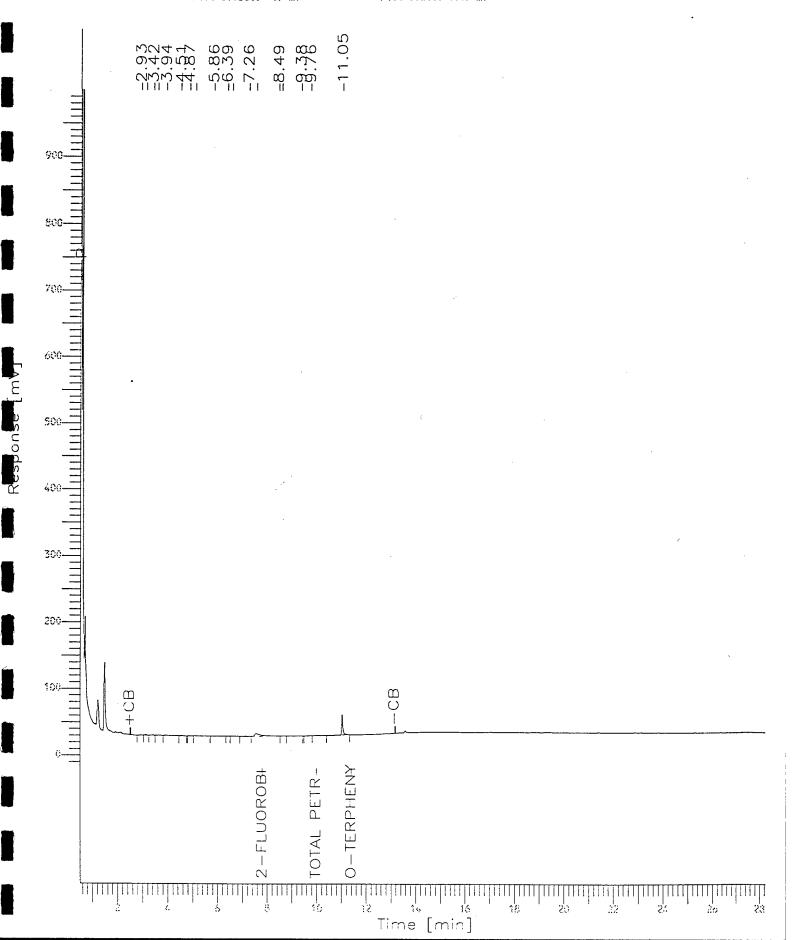
Time of Injection: 09/23/95 12:53

Low Point : -18.72 mV

High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1019 mV



Software Version: 3.2 <16C20>

Sample Name: 9509210x105

Time : 09/23/95 13:56

: MODWD Study

: APM/LT Operator

Instrument : HP\_T AutoSampler : HP\_7673A

Channel: A A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 09/23/95 13:28

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_\_214.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_214.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

# Area/Concentration Report

	Ret Time	Area	Height	BL	Area/	RF	VALUE		Component	Raw
#	[min]	[uV-sec]	[uV]		Amount			PPM	Name	Amount
1	2,805	151037.06	24792.67	BV	5.0000e5		0.5066	2399.3809		0.3021
2	3.002	70340.50	9719.76		5.0000e5		0.5066	2399.3809		0.1407
3	3.217	35534.17	6224.15		4.9999e5		0.5066	2399.3809		0.0711
4	3.316	103766.88			5.0000e5		0.5066	2399.3809		0.2075
5	3.492	117472.94	18166.50	W	5.0000e5		0.5066	2399.3809		0.2350
6	3.593	88553.98	19355.00	W	4.9999e5		0.5066	2399.3809		0.1771
7	3.686	74646.70	16061.00	W	5.0000e5		0.5066	2399.3809		0.1493
8	3.821	56805.80	11756.93	W	5.0000e5		0.5066	2399.3809	1	0.1136
9	3.938	430525.66	78495.47	W	5.0000e5		0.5066	2399.3809		0.8611
10	4.118	153389.81	21235.96	W	5.0000e5		0.5066	2399.3809		0.3068
11	4.273	97051.39	21940.49	W	5.0000e5		0.5066	2399.3809		0.1941
12	4.331	91681.59		W	5.0000e5		0.5066	2399.3809		0.1834
13	4.464	191358.38			5.0000e5		0.5066	2399.3809		0.3827
14	4.562	253393.63	38551.23		5.0000e5		0.5066	2399.3809		0.5068
15	4.668	95368.09			5.0000e5		0.5066	2399.3809		0.1907
16	4.749		29333.39		5.0000e5		0.5066	2399.3809		0.3660
17	4.886		118453.63		4.9999e5		0.5066	2399.3809		1.6558
18	5.082		31733.43		5.0000e5		0.5066	2399.3809		0.3520
19	5.194	158491.64	34600.71		5.0000e5		0.5066	2399.3809		0.3170
20	5.391	628436.13	72754.56		4.9999e5		0.5066	2399.3809		1.2569
21	5.466		77564.68		5.0000e5		0.5066	2399.3809		0.8508
22	5.716	1009190.00			5.0000e5		0.5066	2399.3809		2.0184
23	5.818		86459.89		5.0000e5		0.5066	2399.3809		0.7486
24	5.931	199351.39			5.0000e5		0.5066	2399.3809		0.3987
25	6.023		76544.36		4.9999e5		0.5066	2399.3809		0.6099
26	6.090	361348.81	78176.77		5.0000e5		0.5066	2399.3809		0.7227
27	6.164		87956.63		5.0000e5		0.5066	2399.3809		0.6269
28	6.239		96613.06		5.0000e5		0.5066	2399.3809		1.2933
29	6.472	1862942.25			5.0000e5		0.5066	2399.3809		3.7259
30 31	6.659 6.790	175248.09	59429.21		5.0000e5		0.5066	2399.3809 2399.3809		0.3505 2.5023
32	6.902		190909.59		5.0000e5		0.5066	2399.3809		1.0050
33	7.050		112669.52		5.0000e5 5.0000e5		0.5066	2399.3809		1.9059 0.8119
34	7.168	2118157.25			5.0000e5		0.5066	2399.3809		4.2363
35	7.384		92586.81		5.0000e5		0.5066	2399.3809		0.8532
36	7.466		178445.41		5.0000e5		0.5066	2399.3809		1.9318
37	7.547		132509.42		5.0000e5		0.5066	2399.3809		0.9693
38	7.622		165487.23		5.0000e5		0.5066	2399.3809		1.7730
39	7.716		146959.97		5.0000e5		0.5066	2399.3809		1.3171
40	7.823	2014179.00			1778.5000		0.5066	2399.3809	2-FLUOROBIPHENYL	1132.5156
41	7.969		124420.60		5.0000e5		0.5066	2399.3809		
42	8.048	1269386.00			4.999e5		0.5066	2399.3809		2.5388
43	8.168		142411.84		5.0000e5		0.5066	2399.3809		1.2536
44	8.245	341337.38	116852.96	VV	5.0000e5		0.5066	2399.3809	•	0.6827
45	8.363	1498599.25	266863.72	VV	5.0000e5		0.5066	2399.3809		2.9972
46	8.436	2307935.50	381601.44	VV	5.0000e5		0.5066	2399.3809		4.6159
47	8.675	1184455.50	187700.11	VV	5.0000e5		0.5066	2399.3809		2.3689
48	8.788	1186520.00			5.0000e5		0.5066	2399.3809		2.3730
49	9.019	2684418.00	391363.22	VV	5.0000e5		0.5066	2399.3809		5.3688

50	9.164	649899.13	136662.70 VV	5.0000e5	0.5066	2399.3809		1.2998	
51 52	9.284	1443725.50	149536.47 VV	5.0000e5	0.5066	2399.3809		2.8875	
52	9.429	848147.13	140392.67 VV	4.9999e5	0.5066	2399.3809		1.6963	•
53	9.580	1631343.38	310811.41 VV	5.0000e5	0.5066	2399.3809		3.2627	
	9.704	407257.97	102581.21 VV	5.0000e5	0.5066	2399.3809		0.8145	
54 55	9.776	758943.13	115909.06 VV	5.0000e5	0.5066	2399.3809		1.5179	
56	9.903	1408073.38	149664.14 VV	1778.4999	0.5066	2399.3809	Total Petroleum Hydr	791.7197	
57	10.108	1430119.38	240110.55 VV	5.0000e5	0.5066	2399.3809		2.8602	
58	10.281	504574.63	90758.37 VV	5.0000e5	0.5066	2399.3809		1.0092	•
58 59	10.400	545076.31	100165.07 VV	5.0000e5	0.5066	2399.3809		1.0902	
60 61	10.461	460320.31	97661.60 VV	5.0000e5	0.5066	2399.3809		0.9206	
~61	10.554	292535.28	103135.88 VV	5.0000e5	0.5066	2399.3809		0.5851	
62	10.616	1031515.50	170393.88 VV	5.0000e5	0.5066	2399.3809		2.0630	
63 64 65	10.782	466942.50	71526.45 VV	5.0000e5	0.5066	2399.3809		0.9339	
64	10.899	402999.19	74747.79 VV	5.0000e5	0.5066	2399.3809		0.8060	
65	11.102	1394563.38	115767.36 VV	5.0000e5	0.5066	2399.3809		2.7891	
66	11.314	692301.56	53908.85 VV	1883.5000	0.5066	2399.3809	o-Terphenyl	367.5612	
67	11.568	374162.19	52927.26 VV	5.0000e5	0.5066	2399.3809		0.7483	
<b>68</b>	11.697	223762.44	36604.54 VV	5.0000e5	0.5066	2399.3809		0.4475	
58 59	11.832	338672.28	36520.78 VV	5.0000e5	0.5066	2399.3809		0.6773	
70	12.015	303033.06	25575.67 VV	5.0000e5	0.5066	2399.3809		0.6061	
71	12.327	88914.91	12568.07 VV	5.0000e5	0.5066	2399.3809		0.1778	•
72 73 74	12.446	61264.97	9789.08 VV	5.0000e5	0.5066	2399.3809		0.1225	
73	12.565	80014.44	7624.76 VV	5.0000e5	0.5066	2399.3809		0.1600	
74	12.866	14117.00	2014.71 VB	5.0000e5	0.5066	2399.3809		0.0282	
75	13.086	1926.97	287.15 BB	5.0000e5	0.5066	2399.3809		0.0039	
	• • • • • • • • • • • • • • • • • • • •	47363368.00	8.10e6		37.9943	1.7995e5		2378.2942	
-									

Group Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	7.823 11.314	2014179.00 692301.56				0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	1132.5156 367.5612	
		2706480.50	511956.66			1.0132	274.2152		1500.0769	

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_214.TX0

Chromatogram

Sample Name :

: 950901CKLC5 : l:\data\tchrom\pest\hp\_t\T\_ FileName

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor:

End Time : 28.25 min

Plot Offset: -15 mV

Sample #:

Page 1 of 1

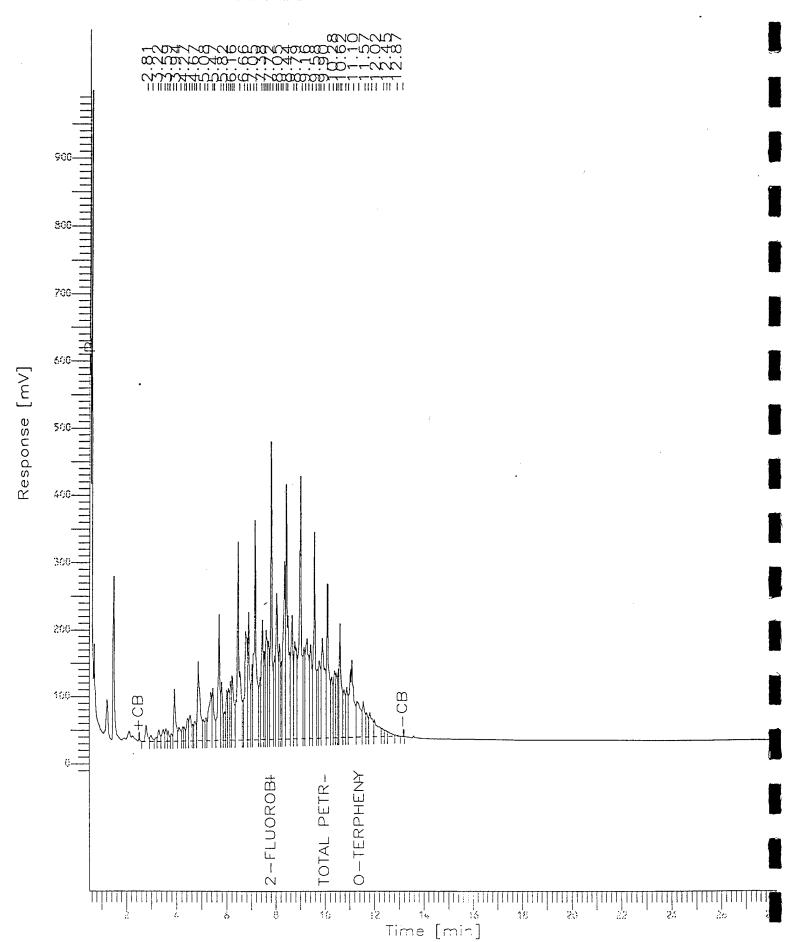
Date: 09/23/95 13:56

Time of Injection: 09/23/95

13:28

High Point: 1000.00 mV

Low Point : -14.92 mV Plot Scale: 1015 mV



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Page

7

Environmental Laboratory 8880 Interchange Drive Houston, Texas 77054 713/660-0901

Analysis Request and Chain of Custody Record

				713/660-090	0901				
Project No.			Client/Project Name				Project Location		
1315-193	73		OPTECH				MINNEADOLIS		`
Field Sample No./ Identification	Date and Time	Grab	Sample E Container O (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preser- vative		ANALYSIS REQUESTED		LABORATORY REMARKS
8-41-00-145	9-19-95		3-104	WATER	HCR	77H-180	WANNE TO SW-8240	0,	
PM100-185	9-19-85			WATER	HCE	TP#- 080	WONR		
Tajo BLANK	9-13-95		B 2-104	//	#CE	104 5W-8240	240		
591-EB	4-19-95		3-10A	//	HCL	VOC 5W	Sw-8240		
59-EB	1135		1-1 BTex	11	HCL	TM- DRO WDNR	WBNR		
801-00/MW	1010		3-104	//	1756	VOC 54	SU-824D		
801-00/mm	9-19-95		1-1 Eter	11	HCE	TPH- DR	TPH- DRO WDNR		
			_						
_	,		<b>)</b>	>					
Samplers:	Samplers: (Signature)		Relinquished by:	11		34-62	Received by: (Signature)	Date: 9-19-55 Intact	- Intact
MAN	N.		1/24	11/10		1336	on the Hours	Time: 13.76	
K. 13	Affiliation		Relinquished bý: (Signature)			Date: Time:	Received by: (Signature)	Date: Time:	Intact
OPTECL	#		Relinquished by: (Signature)			Date: Time:	Received by: (Signature)	Date: Time:	(finitact) $3^{\circ}$ (
SAMPLER REMARKS:	.;		ſ				pratory: Lled	Date: 7/20/9	分 Laboratory No.
Seal#							Data Hesuits to:		

Environmental Laboratory 8880 Interchange Drive Houston, Texas 77054 713/660-0901

Analysis Request and Chain of Custody Record

Project No.		Client/	Client/Project Name	_			Project Location	
13/2-1	193	W	OPTECH	'	MINNEApolis	is ANGB	Menneapolis	
Field Sample No./ Identification	Date and Rime	Сотр	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preser- vative		ANALYSIS REQUESTED	LABORATORY REMARKS
TRIP 9	9-13-95	2	VOA	WATER	HEE	VOC 5a	Sw-8240	
873-DOIMW	9-19-45	3	3-voA	17	77	10c SW	Sw-8240	
11 11	11		1-18te	17	\cdot	TPH-DRO	O WDNR	
873-M5/M3D	9-19-15 0845	3	- VOA	77	<i>)  </i>	VOC 5a	Sa-8240	
11 11 11	21		1-/ata	11	11	TPH-DRO	2 WDNR	
801-FB	9-19-95	• •	3-109	Z	``	VOC Sa	Sa -8240	
11 21	11		- (lita	<i>&gt;</i> /	١	TPH-DRO	O WDNR	
						,		
·	<i>\</i>		)	)			J	
Samplers:	Samplers: (Signature)	₽. S.	Relinquished by: (Signature)	110		Date: 9-19-55	Received by: (Signature)	Date: 19 490-15-Intact
A. M.	THE STATE OF THE S	Re (S)	Relinquished by: (Signature)			3	Received by: (Signature)	Date: Intact Time:
OPTECH OPTECH		Re (Si	Relinquished by: (Signature)			Date:	Received by: (Signature)	Date: Intact 30C
SAMPLER REMARKS: Seal #	(8:		FEDEX	939 3968 7:	717	·	Received for labbratory: (Signal-ring)  Data Results to:	Datを/この/q.S Laboratory No. Time: /OOC)
		-	CUSTOMER PACKAG	CUSTOMER PACKAGE TRACKING NUMBER - PULL UP PURPLE TAE	PLE TAB Z	T		

# SPL Houston Environmental Laboratory Sample Login Checklist

te:	me:		
9-20-95	1000		
Completto		1	
L Sample ID:			
950970	9		
		Yes	No
Chain-of-Custody (COC) form is	present.	<u> </u>	
COC is properly completed.		V	
If no, Non-Conformance Works	neet has been completed.		
Custody seals are present on the	shipping container.	<u> </u>	
If yes, custody seals are intact.			ļ
All samples are tagged or labeled			
If no, Non-Conformance Works	neet has been completed.		ļ
1		<i>i</i>	
Temperature of samples upon ar	rival:		<i>10</i> 0
			3° C
Method of sample delivery to SF	L: SPL Delivery		
	Client Delivery		
	FedEx Delivery (airbill	#) 6642	912430
	Other:		
Method of sample disposal:	SPL Disposal		V
	Chain-of-Custody (COC) form is COC is properly completed.  If no, Non-Conformance Worksh Custody seals are present on the If yes, custody seals are intact.  All samples are tagged or labeled If no, Non-Conformance Worksh Sample containers arrived intact Temperature of samples upon arrived of samples upon arrived of sample delivery to SP	Chain-of-Custody (COC) form is present.  COC is properly completed.  If no, Non-Conformance Worksheet has been completed.  Custody seals are present on the shipping container.  If yes, custody seals are intact.  All samples are tagged or labeled.  If no, Non-Conformance Worksheet has been completed.  Sample containers arrived intact  Temperature of samples upon arrival:  Method of sample delivery to SPL:  SPL Delivery  Client Delivery  FedEx Delivery (airbill and the sample supon arrival).	Sample ID:   9509 709   Yes

Name:	Date:
S. West	9-20-95

Return to Client

HOLD



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 95 - 09 - 863

Approved for release by:

M. Scott Sample, Laboratory Director

Date: 10/11/95

Karen Satterfield, Project Manager



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

DATE: 10/1

# Certificate of Analysis No. H9-9509863-01

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

PROJECT NO: 1315-193

PROJECT: Optech/Minneapolis

SITE: Minneapolis ANGB

SAMPLED BY: Operational Technology

SAMPLE ID: MW-4

MATRIX: WATER
DATE SAMPLED: 09/21/95 14:10.

DATE RECEIVED: 09/22/95

DATA		<del></del>
RESULTS	DETECTION LIMIT	UNITS
1.04	1.0	mg/L
		J
09/26/95		
1.03		mgy L
09/28/95		
		,
		, 🔳
ND	0.1	m <b>d</b> L
		•
	RESULTS 1.04 09/26/95 1.03	RESULTS DETECTION LIMIT  1.04 1.0  09/26/95  1.03

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509863-01

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/95

PROJECT: Optech/Minneapolis

SITE: Minneapolis ANGB

SAMPLED BY: Operational Technology

SAMPLE ID: MW-4

PROJECT NO: 1315-193
MATRIX: WATER

DATE SAMPLED: 09/21/95 14:10:00

DATE RECEIVED: 09/22/95

ANALYTICAL DATA							
PARAMETER	RESULTS	PQL*	UNITS				
Acetone	ND	100	ug/L				
Benzene	35	5	ug/L				
Bromodichloromethane	ND	5	ug/L				
Bromoform	ND	5	ug/L				
Bromomethane	ND	10	ug/L				
2-Butanone	ND	20	ug/L				
Carbon Disulfide	ND	5	ug/L				
Carbon Tetrachloride	ND	5	ug/L				
Chlorobenzene	ND	5	ug/L				
Chloroethane	ND	10	ug/L				
2-Chloroethylvinylether	ND	10	ug/L				
Chloroform	ND	5	ug/L				
Chloromethane	ND	10	ug/L				
Dibromochloromethane	ND	5	ug/L				
1,1-Dichloroethane	ND	5	ug/L				
1,1-Dichloroethene	ND	5	ug/L				
1,2-Dichloroethane	ND	5	ug/L				
cis-1,2-Dichloroethene	ND	5	ug/L				
trans-1,2-Dichloroethene	ND	5	ug/L				
total-1,2-Dichloroethene	ND	5	ug/L				
1,2-Dichloropropane	ND	5	ug/L				
cis-1,3-Dichloropropene	ND	5	ug/L				
trans-1,3-Dichloropropene	ND	5	ug/L				
Ethylbenzene	96	5	ug/L				
2-Hexanone	ND	10	ug/L				
Methylene Chloride	ND	5	ug/L				
4-Methyl-2-Pentanone	ND	10	ug/L				
Styrene	ND	5	ug/L				
1,1,2,2-Tetrachloroethane	ND	5	ug/L				
Tetrachloroethene	ND	5	ug/L				
Toluene	ND	5	ug/L				
1,1,1-Trichloroethane	ND	· 5	ug/L				
1,1,2-Trichloroethane	ND	5	ug/L				
Trichloroethene	ND	5	ug/L				
Trichlorofluoromethane	ND	5	ug/L				
Vinyl Acetate	ND	10	ug/L				
Vinyl Chloride	ND	10	ug/L				
Xylenes (total)	550	10	ug/L				
			<b>J</b> ,				

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509863-01

Operational Tech

SAMPLE ID: MW-4

SURROGATES	AMOUNT	%	LOWER	UPPER
	SPIKED	RECOVERY	LIMIT	LIMIT
1,2-Dichloroethane-d4	50 ug/L	92	76	114
Toluene-d8	50 ug/L	102	88	110
4-Bromofluorobenzene	50 ug/L	102	86	115

ANALYZED BY: GT DATE/TIME: 09/22/95 21:20:00

METHOD: 8240, Volatile Organics - Water

\* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

Report Date: 04-Oct-1995 16:27

### SPL Houston Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950922.b/m265s13.d

ab Smp Id: 9509863-01A-8240W nj Date : 22-SEP-95 21:20

Operator : GT Inst ID: m.i

mp Info : 9509863-01A-8240W/1X isc Info : M265W1/M265B01/M265CC1

Comment

Method : /chem/m.i/m950922.b/mvoclpw.m

eth Date: 02-Oct-1995 15:47 jimmy Quant Type: ISTD Cal File: m265ccl.d

Als bottle: 20 Fil Factor: 1.000 Integrator: HP RTE

Compound Sublist: normal.sub

Target Version: 3.10

						CONCENTRA	ATIONS
	_	QUANT SIG				ON-COLUMN	FINAL
	pmpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	-	====	==				
	21 Benzene	78.00	5.545	5.513 (0.910)	317150	180	35
	39 Xylene (Total)	106.00			2626579	2600	520
ı	40 Ethylbenzene	106.00	11.747	11.714 (1.042)	374695	480	96
_	41 m,p-Xylene(s)	106.00	11.969	11.936 (1.062)	2626579	2600	520 (A)
•	16 Bromochloromethane	128.00	4.231	4.200 (1.000)	57586	250	
и	23 1,4-Difluorobenzene	114.00	6.092	6.060 (1.000)	345424	250	
*	37 Chlorobenzene-d5	117.00	11.275	11.256 (1.000)	359041	250	
\$	18 1,2-Dichloroethane-d4	102.00	5.043	5.011 (1.192)	22568	230	46
ļ	31 Toluene-d8	98.00	8.779	8.746 (0.779)	477771	260	51
	46 Bromofluorobenzene	95.00	13.505	13.471 (1.198)	271460	260	51

# C Flag Legend

- Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 28-Sep-1995 10:56

# SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i Lab File ID: m265s13.d

Calibration Date: 09/22/95

Calibration Time: 1100

Lab Smp Id:

Analysis Type: VOA

Level: LOW

Sample Type: WATER

Quant Type: ISTD Operator: GT

Method File: /chem/m.i/m950922.b/mvoclpw.m

Misc Info: M265W1/M265B01/M265CC1

COMPOUND			LIMIT	_	
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
16 Bromochloromethane 23 1,4-Difluorobenzene 37 Chlorobenzene-d5	60744 379288 404141	30372 189644 202070	121488 758576 808282	57586 345424 359041	-5.20 -8.93 -11.16

COMPOUND	CHANDADD		LIMIT	GAMET	
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
16 Bromochloromethane 23 1,4-Difluorobenzene 37 Chlorobenzene-d5	4.20 6.06 11.26	3.70 5.56 10.76	4.70 6.56 11.76	4.23 6.09 11.27	0.74 0.53 0.16

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Date: 22-SEP-1995 21:20

Client ID:

Instrument: m.i

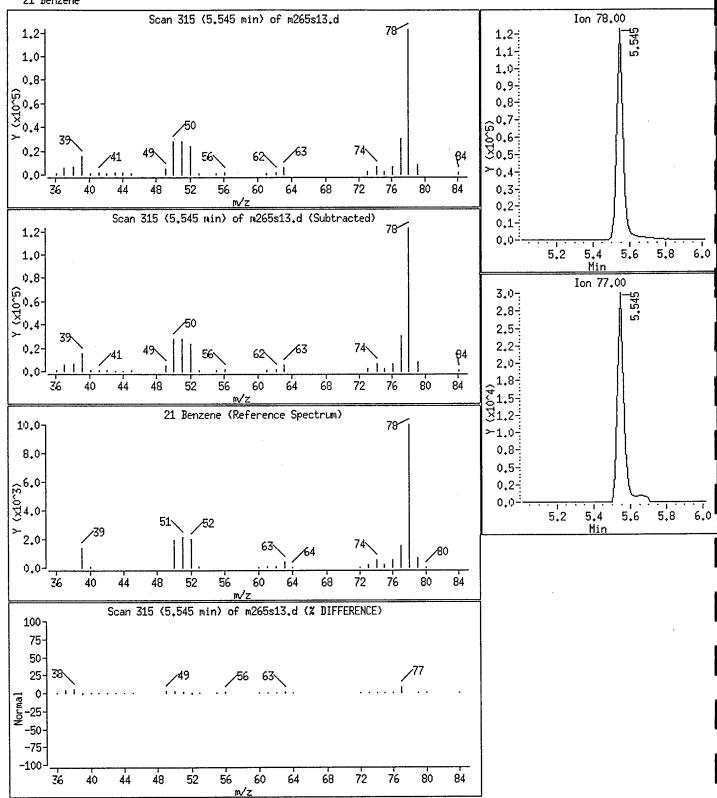
Sample Info: 9509863-01A-8240W/1X

Purge Volume: 5.0

Operator: GT

Column phase: 30m,hp5ms,0.25u df Column diameter: 0.25





Date: 22-SEP-1995 21:20

Client ID:

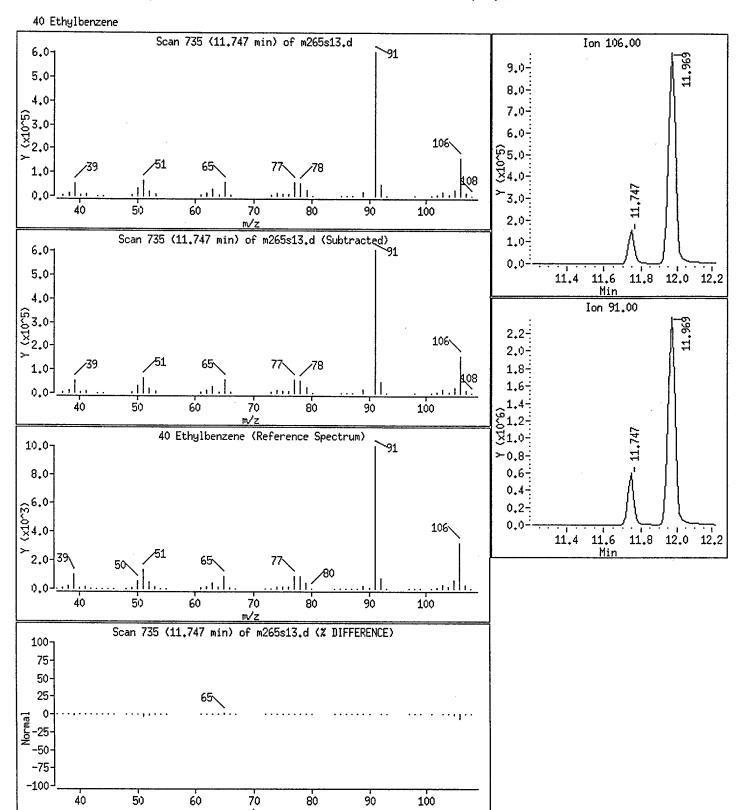
Sample Info: 9509863-01A-8240W/1X

Purge Volume: 5.0

Column phase: 30m, hp5ms, 0.25u df

Instrument: m.i

Operator: GT



Date: 22-SEP-1995 21:20

Client ID:

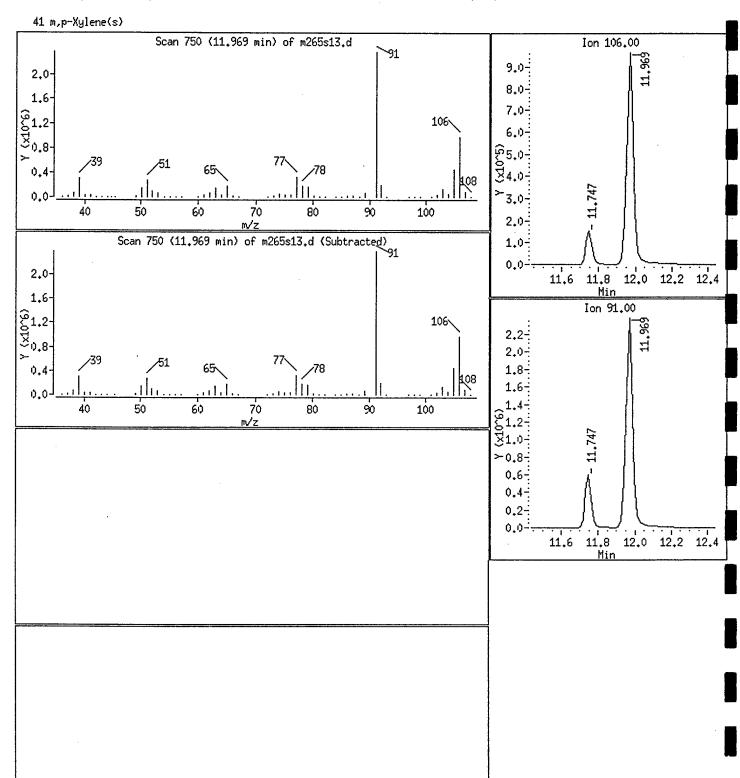
Instrument: m.i

Sample Info: 9509863-01A-8240W/1X

Purge Volume: 5.0

Operator: GT

Column phase: 30m,hp5ms,0.25u df



Report Date: 29-Sep-1995 11:46

### SPL Labs

Volatiles by 624/8240

Pata file : /chem/m.i/m950924.b/m267s04.d

ab Smp Id:

Thj Date : 24-SEP-1995 21:07

Operator : GT Inst ID: m.i

mp Info : 9509863-01A-8240W/2X isc Info : M267W1/M267B01/M267CC1

Comment

tethod : /chem/m.i/m950924.b/mvoclpw.m

Leth Date: 29-Sep-1995 11:44 george Quant Type: ISTD Cal Date: 24-SEP-1995 17:22 Cal File: m267cc1.d

Als bottle: 10 Fil Factor: 2.000 Integrator: HP RTE Target Version: 3.10

46 Bromofluorobenzene

Compound Sublist: normal.sub

260

51

_					CONCENTRA	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
mpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	====	==		=======	*****	
21 Benzene	78.00	5.574	5.558 (0.913)	174920	89	35
39 Xylene (Total)	106.00			1357702	1400	550
40 Ethylbenzene	106.00	11.760	11.758 (1.040)	199517	250	99
41 m,p-Xylene(s)	106.00	11.996	11.980 (1.061)	1357702	1400	550
16 Bromochloromethane	128.00	4.260	4.244 (1.000)	55614	250	
23 1,4-Difluorobenzene	114.00	6.105	6.089 (1.000)	358824	250	
* 37 Chlorobenzene-d5	117.00	11.302	11.286 (1.000)	373970	250	
18 1,2-Dichloroethane-d4	102.00	5.057	5.056 (1.187)	23231	250	50
31 Toluene-d8	98.00	8.792	8.776 (0.778)	502228	250	50

13.531 13.516 (1.197)

282084

95.00

Report Date: 28-Sep-1995 15:32

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i Lab File ID: m267s04.d Calibration Date: 09/24/95

Calibration Time: 1722

Lab Smp Id:

Level: LOW

Analysis Type: VOA Quant Type: ISTD

Sample Type: WATER

Operator: GT

Method File: /chem/m.i/m950924.b/mvoclpw.m

Misc Info: M267W1/M267B01/M267CC1

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
16 Bromochloromethane	64827	32414	129654	55614	-14.21
23 1,4-Difluorobenzene	417600	208800	835200	358824	-14.07
37 Chlorobenzene-d5	429645	214822	859290	373970	-12.96

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	========	=======	=======	=======	======
16 Bromochloromethane	4.24	3.74	4.74	4.26	0.37
23 1,4-Difluorobenzene	6.09	5.59	6.59	6.11	0.26
37 Chlorobenzene-d5	11.29	10.79	11.79	11.30	0.14

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: m.i

Data File: /chem/m.i/m950924.b/m267s04.d

Date : 24-SEP-1995 21:07 Client ID:

Date: 24-SEP-1995 21:07

Client ID:

Instrument: m.i

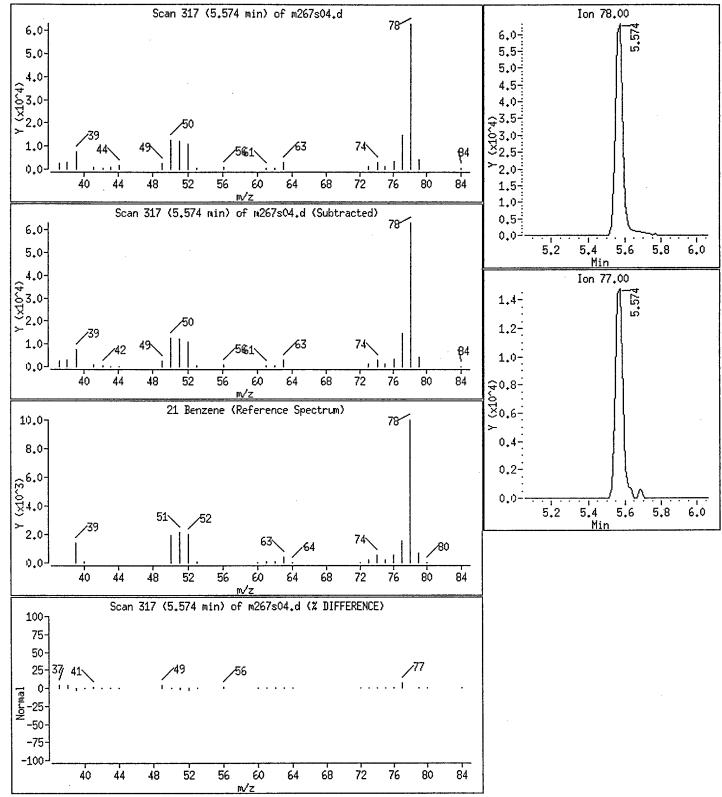
Sample Info: 9509863-01A-8240W/2X

Purge Volume: 5.0

Operator: GT

Column phase: 30m,hp5ms,0.25u df





Date: 24-SEP-1995 21:07

Client ID:

Sample Info: 9509863-01A-8240W/2X

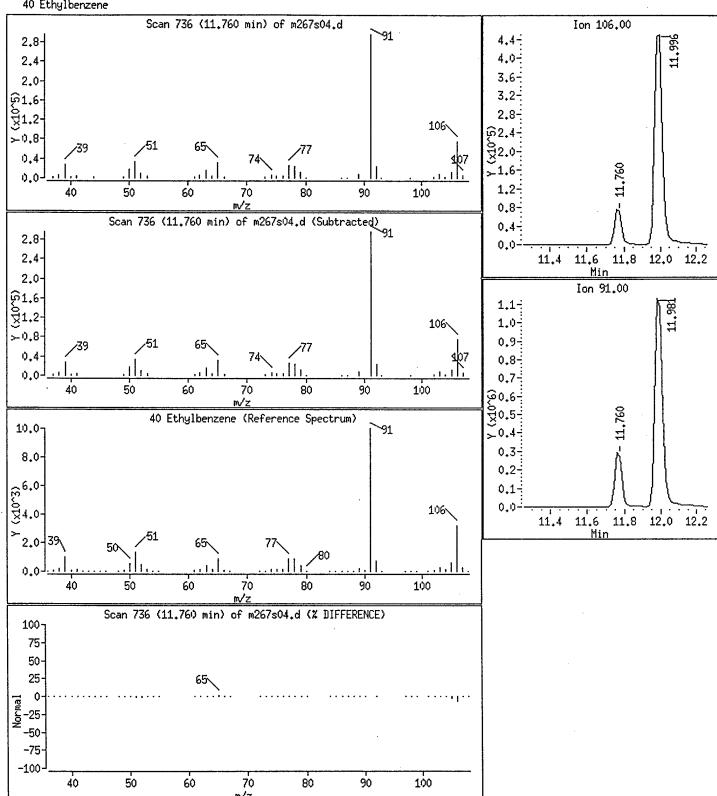
Purge Volume: 5.0

Column phase: 30m, hp5ms, 0.25u df

Instrument: m.i

Operator: GT





Date: 24-SEP-1995 21:07

Client ID:

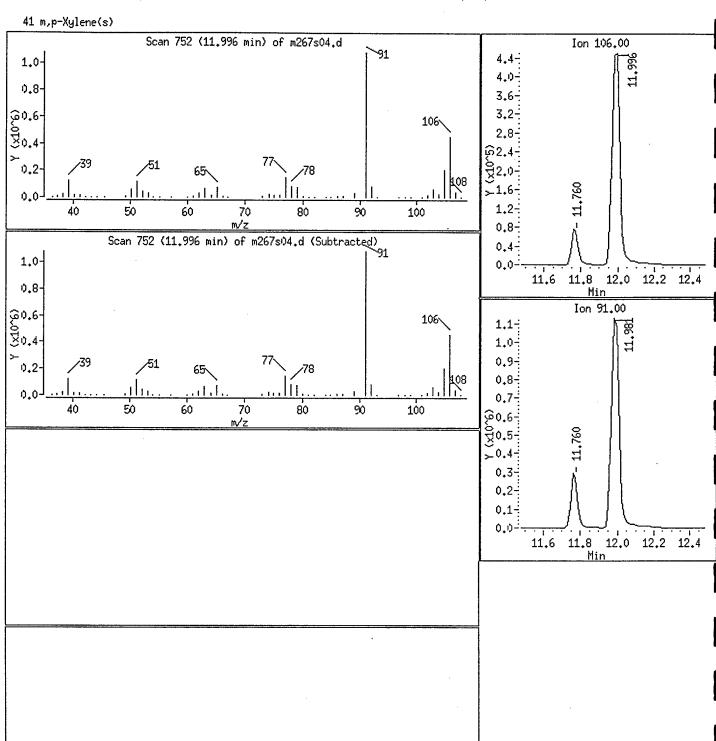
\_\_\_\_\_

Sample Info: 9509863-01A-8240W/2X Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df

Operator: GT

Instrument: m.i



Software Version: 3.2 <16C2O>

: 0/0

Sample Name : 9509863-01C Sample Number: SC ;W;5

Time Study : 09/27/95 17:10

Operator

: RR

: GROW; 1; PQL

Instrument : HP\_J utoSampler : NONE Rack/Vial

Channel: B

A/D mV Range: 1000

nterface Serial # : 1092573380 Data Acquisition Time: 09/27/95 16:53

: 0.00 min. End Time : 17.33 min. Sampling Rate : 2.0000 pts/sec

aw Data File : l:\data\tchrom\btex\varj\JJ\_\_335.raw tesult File : l:\data\tchrom\btex\varj\JJ\_335.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS $\overline{\mbox{HP}}$ \_J.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc ample File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp equence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

Inj. Volume : 2 ul ample Amount : 1.0000

Area Reject : 100.00

Dilution Factor : 5.00

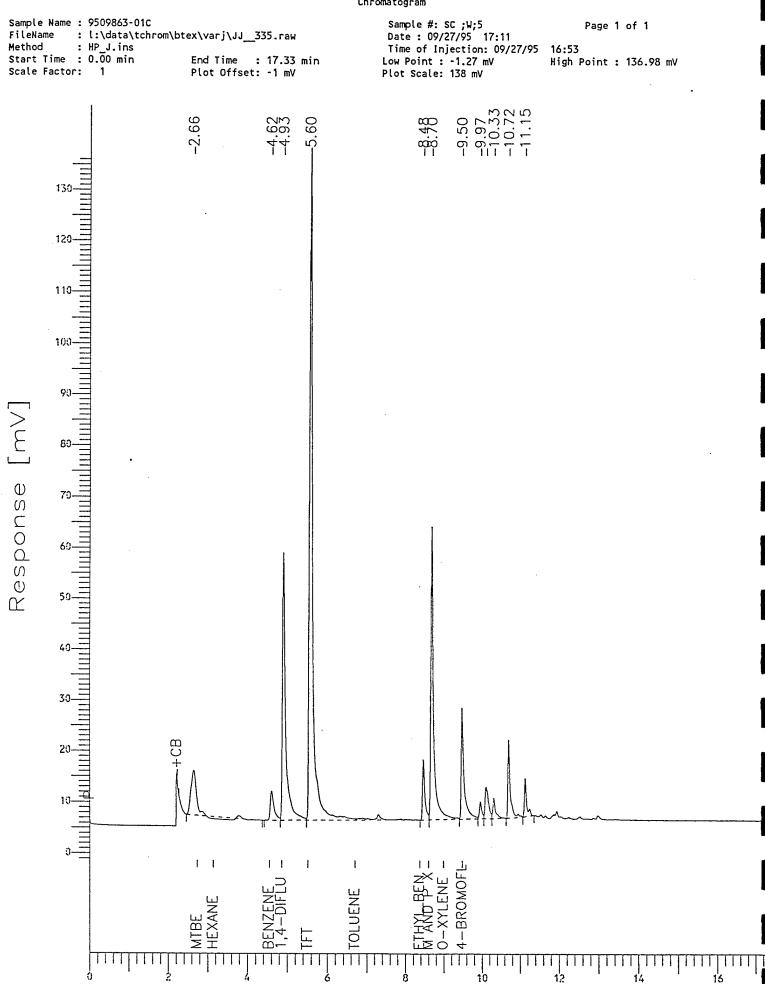
# PURFID Area Percent Report

<b>=</b> eak # <b></b>	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 12	2.659 4.620 4.925 5.598 8.478 8.699 9.495 9.969 10.121 10.325 10.717 11.145	67883.06 37804.70 301752.88 717830.25 52130.56 282763.75 114764.73 14908.59 38691.58 20789.03 67900.00 31712.25	8694.27 BB 5680.26 BV 52571.59 VV 130622.57 VB 11908.71 BV 57630.40 VV 22118.42 VV 3329.06 VV 6183.52 VV 4013.71 VB 15287.13 BB 7543.73 BB	14328.5420 2988.1279 10005.2832	3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725	2.9491 2.9491 2.9491 2.9491 2.9491 2.9491 2.9491 2.9491 2.9491 2.9491 2.9491	MTBE Benzene 1,4-DIFLUOROBENZENE TFT Ethyl_Benzene m and p Xylene 4-BROMOFLUOROBENZENE	9.5928 2.6384 100.9839 0.0000 5.2103 23.0286 92.5557 0.0149 0.0387 0.0208 0.0679 0.0317	0.5898 0.5898 0.5898 0.5898 0.5898 0.5898 0.5898 0.5898 0.5898 0.5898
		1748931.50	325583.38		40.4700	35.3896		234.1837	7.0779

Group Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
5 0	4.925 5.598 9.495	301752.88 717830.25 114764.73	52571.59 VV 2988.1279 130622.57 BB 22118.42 VV 1239.9530	3.3725 3.3725 3.3725	1.9128	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	100.9839 0.0000 92.5557	0.3826 0.3826 0.3826
_		1134347.88	205312.58	10.1175	5.7384		193.5396	1.1477

Report Stored in ASCII File: l:\data\tchrom\btex\varj\JJ\_\_335.TX0



Retention Time

[min]

Software Version: 3.2 <16C2O>

Sample Name : 9509863-018

Sample Number: SC ;W;10

Time Study : 09/28/95 17:10

: DROW

Operator : SEG

Instrument : HP T AutoSampler : HP 7673A Channel: A

A/D mV Range : 1000

: 0/0

Rack/Vial

Interface Serial # : 4118271220 Data Acquisition Time: 09/28/95 16:41

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_308.raw Result File : l:\data\tchrom\pest\hp\_t\T\_\_308.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume Sample Amount : 1.0000

: 1 ul

Area Reject

: 100.00

Dilution Factor : 10.00

\*\*\*=\*\*=\*\*=\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 

# Area/Concentration Report

Peal	Ret Time [min]	Area [uV-sec]	Height [uV]	BL Are Amo	ea/ R ount	F VALUE	DIESEL AMT PPM	. Component Name	Raw Amount	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	2.854 3.211 3.329 3.691 3.962 4.115 4.279 4.412 4.584 4.667 4.837 4.952 5.020 5.395 5.479 5.691 6.167 7.188 7.644 8.716 9.760 10.812 11.065	20398.00 17163.94 123258.06 177982.66 30010.00 106732.06 11701.59 57838.69 23574.67 18187.02 39069.78 18148.70 47746.19 41868.09 34090.19 51768.31 71550.25 28366.13 82771.00 12893.25 1108.00	3550.98 3954.12 18437.75	BB 5.0 BV 5.0 VV 5.0 VV 5.0 VV 5.0 VV 5.0 VV 4.9 VV 4.9 VV 4.9 VV 5.0 VV	0000e5 0000e5 0000e5 0000e5 0000e5 0000e5 0000e5 999e5 999e5 000e5 000e5 000e5 000e5 000e5 000e5	0.506 0.506 0.506 0.506 0.506 0.506 0.506 0.506 0.506 0.506 0.506 0.506 0.506 0.506 0.506 0.506 0.506	5 18.8044 5 518.8044 5 518.8044		0.0408 0.0343 0.2465 0.3560 0.0600 0.2135 0.0234 0.1157 0.0472 0.0364 0.0781 0.0363 0.0955 0.0837 0.0682 0.1035 0.1431 0.0567	
		1024111.13 1	30774.77			11.6516	11932.5059		53.0065	

Group Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.644 11.065	82771.00 7493.00		1778.5000 1883.5000			2-FLUOROBIPHENYL o-Terphenyl	46.5398 3.9782	
		90264.00	3432.60	/	1.0132	91.4537	• • • • • • • • • • • • • • • • • • • •	50.5180	

102.41-0.74 (0.50404) (2.6/980) 10 

#### Chromatogram

Sample Name: 9509863-018

FileName : l:\data\tchrom\pest\hp\_t\T\_\_\_308.raw

: DIESELT.ins Method

Start Time : 0.50 min

End Time : 28.25 min Plot Offset: -21 mV

Sample #: SC ;W:10 Date : 09/28/95 17:10

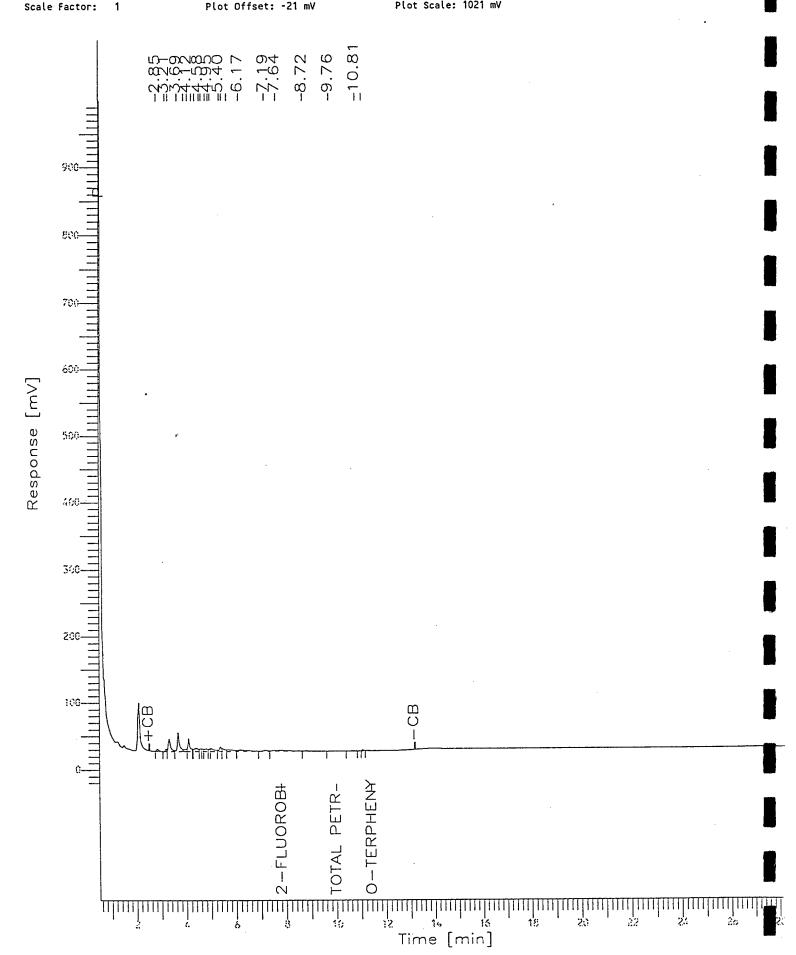
Time of Injection: 09/28/95 16:41

Low Point : -20.83 mV

High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1021 mV





8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509863-02

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

DATE: 10/11/95

PROJECT: Optech/Minneapolis

SITE: Minneapolis ANGB

SAMPLED BY: Operational Technology

SAMPLE ID: MW-4 Dup

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/21/95 14:30:00

DATE RECEIVED: 09/22/95

PARAMETER	CAL DATA RESULTS	DETECTION	TINT M O
	RESULTS	LIMIT	UNITS
GC/FID Diesel-Extractables WI LUFT DRO	1.10	<b>-</b>	mg/L
Analyzed by: SEG			
Date: 09/28/95 17:16:00			
Liquid-liquid extraction METHOD 3510 ***	09/26/95		
Analyzed by: DB			
Date: 09/26/95 10:00:00			
GC/FID Gasoline-Purgeables WI LUFT GRO	1.36		mg/L
Analyzed by: RR			
Date: 09/27/95 11:48:00			
Acid Digestion-Aqueous, ICP METHOD 3010 ***	09/28/95		
Analyzed by: MM		•	
Date: 09/28/95			
Lead, Total	ND	0.1	mg/L
METHOD 6010 ***	1.2	<b>0.1</b>	mg/11
Analyzed by: JM			
Date: 09/29/95			

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9505863-02

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/

PROJECT: Optech/Minneapolis

SITE: Minneapolis ANGB

SAMPLED BY: Operational Technology

SAMPLE ID: MW-4 Dup

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/21/95 14:30:

DATE RECEIVED: 09/22/95

ANALYTICA	L DATA		
PARAMETER	RESULTS	PQL*	UNIT
Acetone	ND	100	ug/
Benzene	35	5	ug/
Bromodichloromethane	ND	5	ug/
Bromoform	ND	5	ug/
Bromomethane	ND	10	ug/
2-Butanone	ND	20	ug/
Carbon Disulfide	ND	5	ug/
Carbon Tetrachloride	ND	5	ug/
Chlorobenzene	ND	5	ug/
Chloroethane	ND	10	ug/
2-Chloroethylvinylether	ND	10	ug/
Chloroform	ND	5	ug/
Chloromethane	ND	10	ug/
Dibromochloromethane	ND	5	ug/
1,1-Dichloroethane	ND	5	ug/
1,1-Dichloroethene	ND	5	ug/
1,2-Dichloroethane	ND	5	ug/
cis-1,2-Dichloroethene	ND	5	ug/
trans-1,2-Dichloroethene	ND	5	ug/
total-1,2-Dichloroethene	ND	5	ug/
1,2-Dichloropropane	ND	5	ug/
cis-1,3-Dichloropropene	ND	5	ug/
trans-1,3-Dichloropropene	ND	5	ug/
Ethylbenzene	100	5	ug/
2-Hexanone	ND	10	ug/
Methylene Chloride	ND	5	ug/
4-Methyl-2-Pentanone	ND	10	ug/
Styrene	ND	5	ug/
1,1,2,2-Tetrachloroethane	ND	5	ug/
Tetrachloroethene	ND	5	ug/
Toluene	ND	5	ug/
1,1,1-Trichloroethane	ND	5	ug/ ug/
1,1,2-Trichloroethane	ND	5	ug/
Trichloroethene	ND	5	
Trichlorofluoromethane	ND	5 5	ug/
Vinyl Acetate	ND	10	ug/
Vinyl Chloride	ND	10	ug/
Xylenes (total)	มม 570		ug/
Ayrenes (Locar)	570	10	ug/

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509863-02

Operational Tech

SAMPLE ID: MW-4 Dup

SURROGATES	AMOUNT	%	LOWER	UPPER
	SPIKED	RECOVERY	LIMIT	LIMIT
1,2-Dichloroethane-d4	50 ug/L	92	76	114
Toluene-d8	50 ug/L	104	88	110
4-Bromofluorobenzene	50 ug/L	96	86	115

ANALYZED BY: GT DATE/TIME: 09/22/95 21:47:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

Page 1

Data File: /chem/m.i/m950922.b/m265s14.d

Report Date: 28-Sep-1995 10:57

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950922.b/m265s14.d

Lab Smp Id:

Inj Date : 22-SEP-1995 21:47

Operator : GT Inst ID: m.i

Smp Info : 9509863-02A-8240W/1X Misc Info : M265W1/M265B01/M265CC1

Comment

Method : /chem/m.i/m950922.b/mvoclpw.m
Meth Date : 28-Sep-1995 10:15 george ( Quant Type: ISTD Cal Date : 22-SEP-1995 11:00 Cal File: m265cc1.d

Als bottle: 21 Dil Factor: 1.000 Integrator: HP RTE

Compound Sublist: normal.sub

Target Version: 3.10

				CONCENTRA	RIONS
QUANT SIG				ON-COLUMN	FINAL
MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
====	==	=======================================	======	======	======
78.00	5.545	5.513 (0.910)	343685	180	35
106.00			3005414	2800	550
106.00	11.748	11.714 (1.042)	435988	510	100
106.00	11.969	11.936 (1.062)	3005414	2800	550 (A)
128.00	4.231	4.200 (1.000)	62024	250	
114.00	6.092	6.060 (1.000)	376041	250	
117.00	. 11.275	11.256 (1.000)	391710	250	
102.00	5.043	5.011 (1.192)	24099	230	46
98.00	8.780	8.746 (0.779)	522524	260	52
95.00	13.505	13.471 (1.198)	281451	240	48
	MASS ==== 78.00 106.00 106.00 106.00 128.00 114.00 117.00 102.00 98.00	MASS RT ==== === 78.00 5.545 106.00 106.00 11.748 106.00 11.969 128.00 4.231 114.00 6.092 117.00 11.275 102.00 5.043 98.00 8.780	MASS RT EXP RT REL RT  ==== ==============================	MASS         RT         EXP RT REL RT         RESPONSE           ====         ====================================	MASS RT EXP RT REL RT RESPONSE ( ng)  ==== ===============================

## QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Report Date: 28-Sep-1995 10:57

#### SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i

Calibration Date: 09/22/95

Lab File ID: m265s14.d

Calibration Time: 1100

Lab Smp Id:

Level: LOW

Analysis Type: VOA Quant Type: ISTD

Sample Type: WATER

Operator: GT

Method File: /chem/m.i/m950922.b/mvoclpw.m

Misc Info: M265W1/M265B01/M265CC1

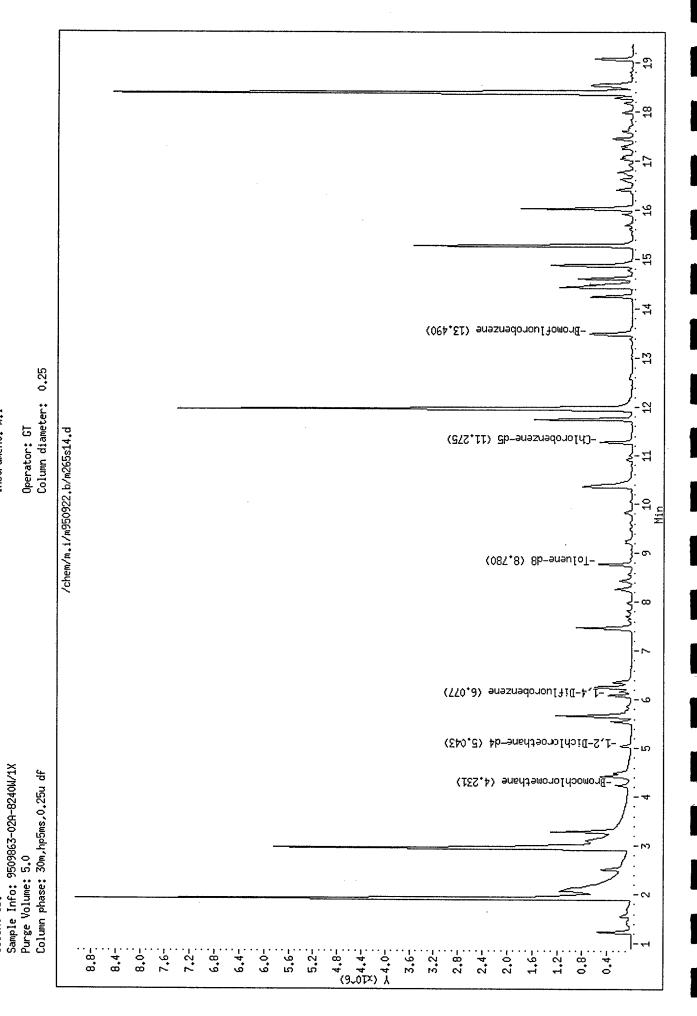
		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane	60744	30372	121488	62024	2.11
23 1,4-Difluorobenzene	379288	189644	758576	376041	-0.86
37 Chlorobenzene-d5	404141	202070	808282	391710	-3.08

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane	4.20	3.70	4.70	4.23	0.74
23 1,4-Difluorobenzene	6.06	5.56	6.56	6.09	0.53
37 Chlorobenzene-d5	11.26	10.76	11.76	11.27	0.16

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area. RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT. Instrument: m.i

Data File: /chem/m.i/m950922.b/m265s14.d
Date : 22-SEP-1995 21:47

Client ID:



Date: 22-SEP-1995 21:47

Client ID:

Sample Info: 9509863-02A-8240W/1X

Purge Volume: 5.0

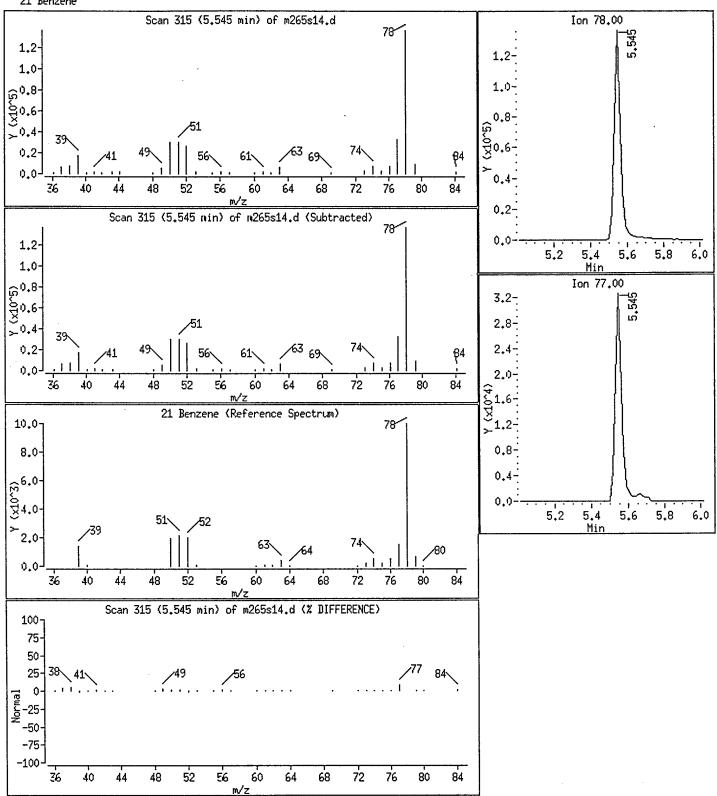
Column phase: 30m,hp5ms,0.25u df

Instrument: m.i

Operator: GT

Column diameter: 0.25





Date: 22-SEP-1995 21:47

Client ID:

Sample Info: 9509863-02A-8240W/1X

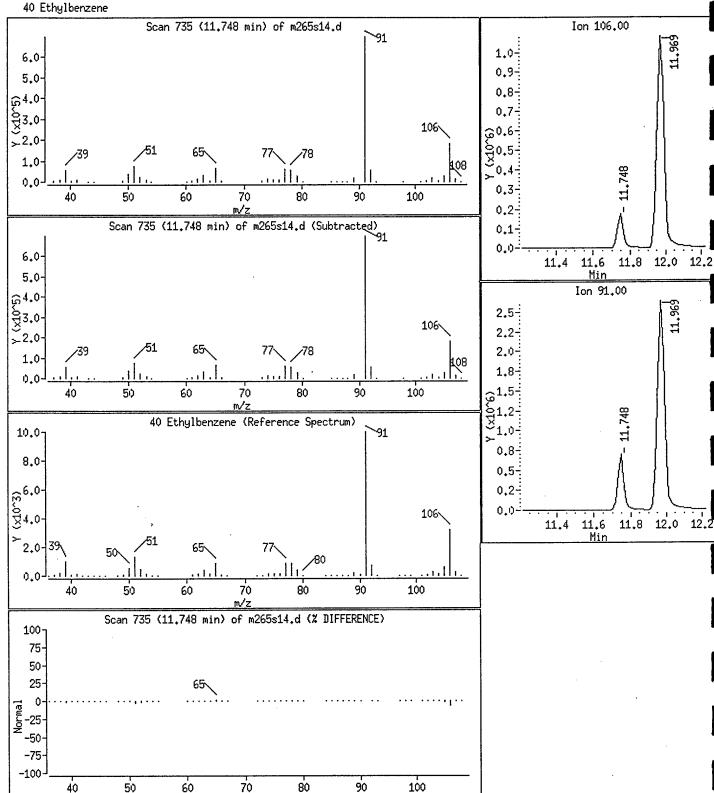
Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df Column diameter: 0.25

Operator: GT

Instrument: m.i





Date: 22-SEP-1995 21:47

Client ID:

Sample Info: 9509863-02A-8240W/1X

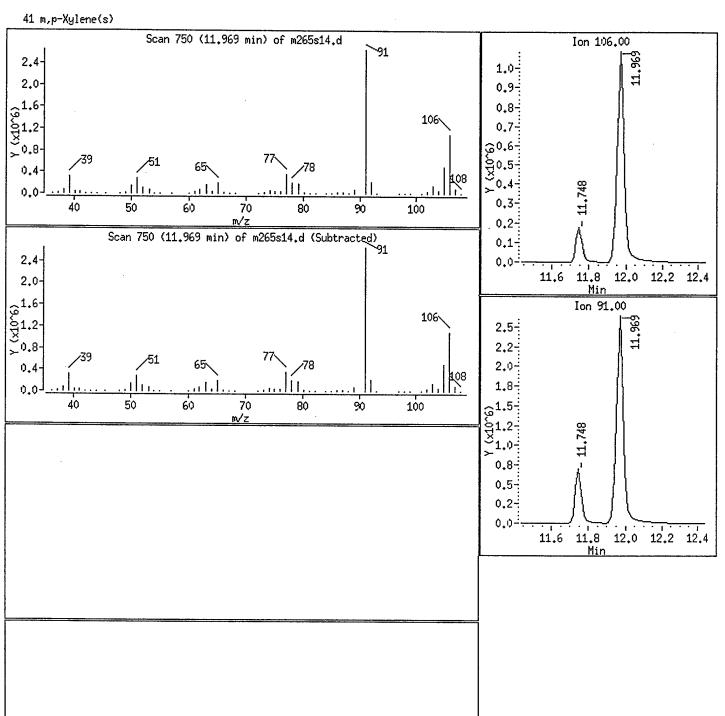
Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df

Instrument: m.i

Operator: GT

Column diameter: 0.25



Data File: /chem/m.i/m950924.b/m267s05.d Page 1

Report Date: 29-Sep-1995 11:46

## SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950924.b/m267s05.d

Lab Smp Id:

Inj Date : 24-SEP-1995 21:34

Operator : GT

Inst ID: m.i

Smp Info : 9509863-02A-8240W/2X Misc Info : M267W1/M267B01/M267CC1

Comment

Method : /chem/m.i/m950924.b/mvoclpw.m

Meth Date : 29-Sep-1995 11:44 george Quant Type: ISTD Cal Date : 24-SEP-1995 17:22 Cal File: m267cc1.d

Als bottle: 11

Dil Factor: 2.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					CONCENTRA	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	===	==	##### #####	======	======	======
21 Benzene	78.00	5.559	5.558 (0.910)	180564	88	35
M 39 Xylene (Total)	106.00			1503902	1400	570
40 Ethylbenzene	106.00	11.760	11.758 (1.040)	217315	250	100
41 m,p-Xylene(s)	106.00	11.981	11.980 (1.060)	1503902	1400	570
* 16 Bromochloromethane	128.00	4.245	4.244 (1.000)	59791	250	370
* 23 1,4-Difluorobenzene	114.00	6.105	6.089 (1.000)	372476	250	
* 37 Chlorobenzene-d5	117.00	11.302	11.286 (1.000)	398420	250	
\$ 18 1,2-Dichloroethane-d4	102.00	5.057	5.056 (1.191)	25434		
\$ 31 Toluene-d8	98.00	8.792	8.776 (0.778)		260	51
\$ 46 Bromofluorobenzene	95.00		• • • • • • • • • • • • • • • • • • • •	523268	240	49
	33.00	13.517	13.516 (1.196)	291166	250	49

Page 2

Data File: /chem/m.i/m950924.b/m267s05.d

Report Date: 28-Sep-1995 15:32

## SPL Labs

### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i

Lab File ID: m267s05.d

Lab Smp Id:

Analysis Type: VOA

Quant Type: ISTD

Operator: GT

Method File: /chem/m.i/m950924.b/mvoclpw.m

Misc Info: M267W1/M267B01/M267CC1

Calibration Date: 09/24/95 Calibration Time: 1722

Level: LOW

Sample Type: WATER

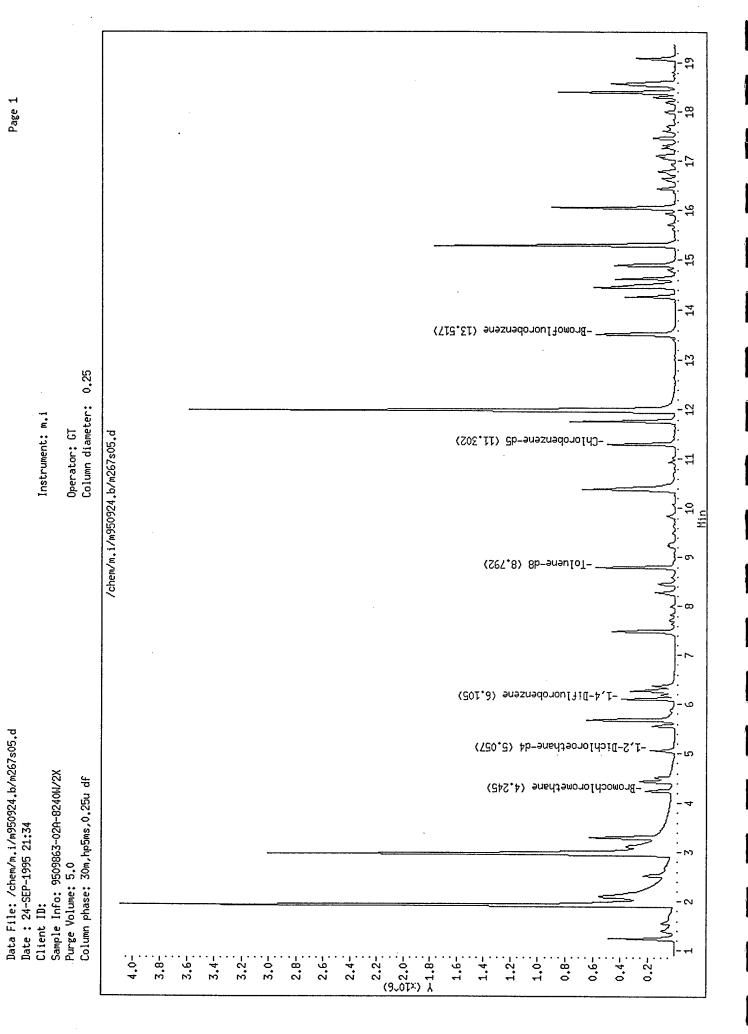
	AREA	LIMIT		
STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======	=======	=======	=======	======
64827	32414	129654	59791	-7.77
417600	208800	835200	372476	-10.81
429645	214822	859290	398420	-7.27
	64827 417600	STANDARD LOWER 	64827 32414 129654 417600 208800 835200	STANDARD         LOWER         UPPER         SAMPLE           64827         32414         129654         59791           417600         208800         835200         372476

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	========	=======	=======	=======	======
16 Bromochloromethane	4.24	3.74	4.74	4.24	0.02
23 1,4-Difluorobenzene	6.09	5.59	6.59	6.11	0.26
37 Chlorobenzene-d5	11.29	10.79	11.79	11.30	0.14

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area. RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: m.i



Data File: /chem/m.i/m950924.b/m267s05.d

Date: 24-SEP-1995 21:34

Client ID:

Sample Info: 9509863-02A-8240W/2X

Purge Volume: 5.0

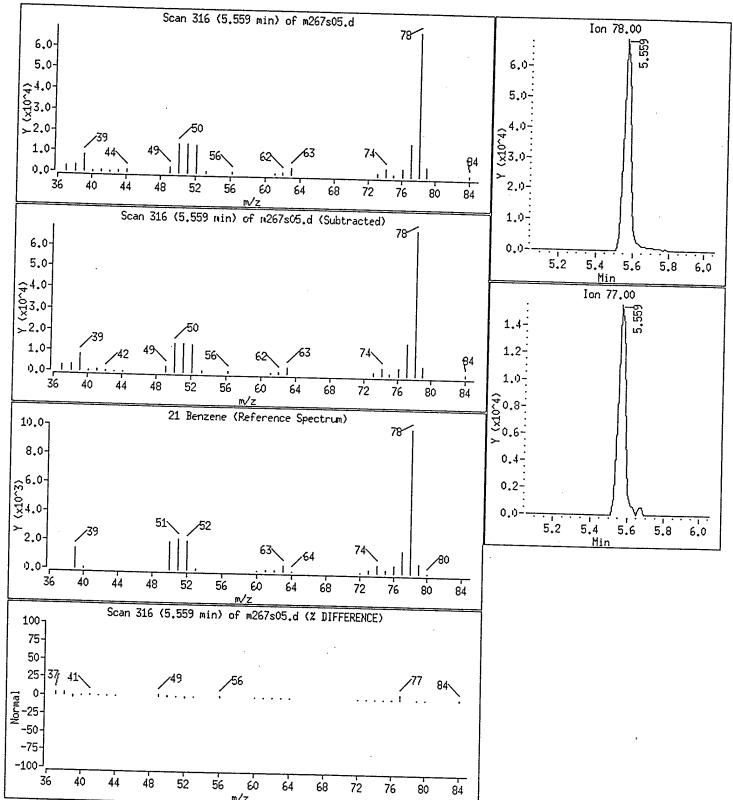
Column phase: 30m, hp5ms, 0.25u df

Instrument: m.i

Operator: GT

Column diameter: 0.25





Date: 24-SEP-1995 21:34

Client ID:

Instrument: m.i

Page 3

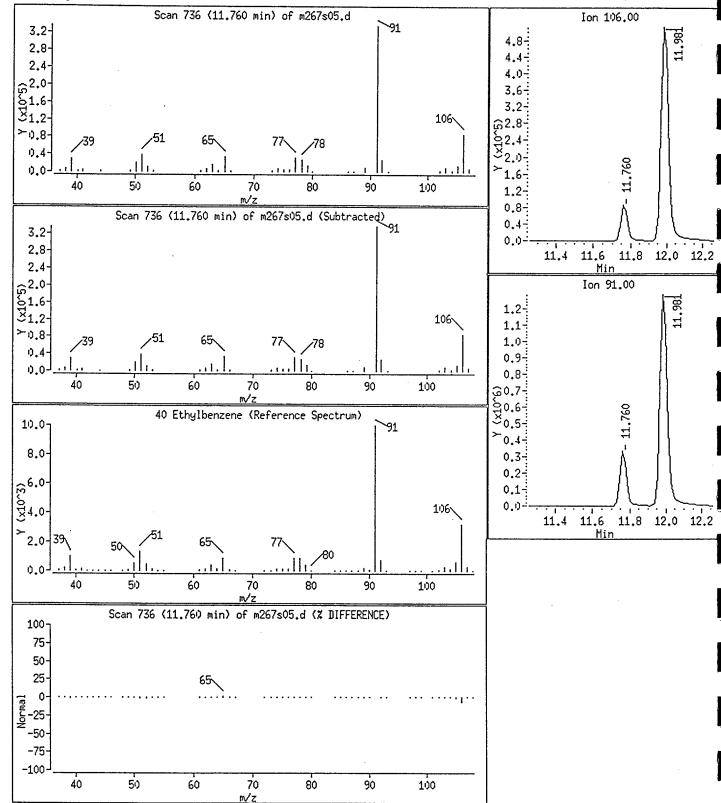
Sample Info: 9509863-02A-8240W/2X

Purge Volume: 5.0

Operator: GT

Column phase: 30m,hp5ms,0.25u df Column diameter: 0.25





Data File: /chem/m.i/m950924.b/m267s05.d

Date: 24-SEP-1995 21:34

Client ID:

Instrument: m.i

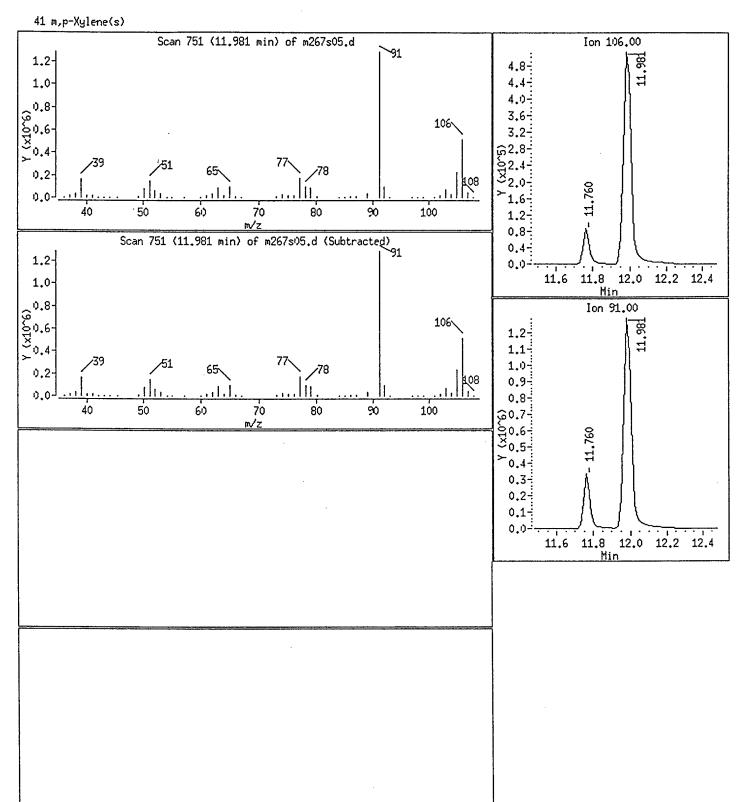
Sample Info: 9509863-02A-8240W/2X

Purge Volume: 5.0

Operator: GT

Column phase: 30m, hp5ms, 0.25u df

Column diameter: 0.25



Software Version: 3.2 <16C20>

Operator : RR

Instrument : HP\_J

Channel: B A/D mV Range: 1000

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial #: 1092573380 Data Acquisition Time: 09/27/95 11:48

Delay Time : 0.00 min. End Time : 17.33 min. Sampling Rate : 2.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\varj\JJ\_\_324.raw
Result File : l:\data\tchrom\btex\varj\JJ\_\_324.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 5.00

PURFID Area Percent Report

Peak	Ret Time	Area	Height BL	Area/	RF VALUE	PURFID AMT.	Component	RAW AMT	RAW AMT.
#	[min]	[uV-sec]	[uV]	Amount		PPM	Name	PPB	PURFID PPM
1	2.657	78907.75	8793.85 BB	8115.2710	3.3725	3.5750	MTBE	9.7234	0.7150
2	4.612	40398.81	6114.42 BV	16431.9004	3.3725	3.5750	Benzene	2,4586	0.7150
3	4.917	341253.63	62029.98 VV	3426.7705	3.3725	3.5750	1,4-DIFLUOROBENZENE	99.5846	0.7150
4	5.592	823204.13	155318.41 VB		3.3725	3.5750	TFT	0.0000	0.7150
5	8.472	57069.86	13902.32 BV	11474.0098	3.3725	3.5750	Ethyl_Benzene	4.9738	0.7150
6	8.693	317531.50	69357.22 VV	14081.2900	3.3725		m and p Xylene	22.5499	0.7150
7	9.487	151321.88	32199.05 VV	1421.9717	3.3725	3.5750	4-BROMOFLUOROBENZENE	106.4169	0.7150
8	9.962	18228.49	4263.55 VV	1.0000e6	3.3725	3.5750		0.0182	0.7150
9	10.114	48705.52	7941.21 VV	1.0000e6	3.3725	3.5750		0.0487	0.7150
10	10.318	28350.80	5581.77 VV	1.0000e6	3.3725	3.5750		0.0284	0.7150
11	10.711	98994.05	22024.00 VV	1.0000e6	3.3725	3.5750		0.0990	0.7150
12	11.139	98137.44	11192.99 VB	1.0000e6	3.3725	3.5750		0.0981	0.7150
13	12.535	8220.25	1324.35 BB	1.0000e6	3.3725	3.5750		0.0082	0.7150
14	12.979	9743.50	2144.08 BB	1.0000e6	3.3725	3.5750		0.0097	0.7150
		2120067.50	402187.25		47.2150	50.0495		246.0176	10.0099

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4 5 10	4.917 5.592 9.487	341253.63 823204.13 151321.88	62029.98 VV 155318.41 BB 32199.05 VV		3.3725 3.3725 3.3725	2.2187	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	99.5846 0.0000 106.4169	0.4438
		1315779.63	249547.44		. 10.1175	6.6562		206.0016	1.3312

END

Report Stored in ASCII File: l:\data\tchrom\btex\varj\JJ\_324.TX0

#### Chromatogram

Sample #: SC ;W;5 Date : 09/27/95 12:05 Sample Name: 9509863-020 Page 1 of 1 FileName : l:\data\tchrom\btex\varj\JJ\_\_324.raw Method : HP\_J.ins Start Time : 0.00 min Time of Injection: 09/27/95 11:48 Method End Time : 17.33 min Low Point : -2.50 mV High Point: 161.93 mV Scale Factor: , 1 Plot Offset: -3 mV Plot Scale: 164 mV -9.49 -9.96 -10.32 -10.71 -11.14 -12.54 -12.98 -2.66160-Response ETANDBEN = 0-XYLENE - 4-BROMOFL MTBE HEXANE TFT Retention Time [min]

Software Version: 3.2 <16C20>

Sample Name : 9509863-02B

Time

: 09/28/95 17:44

Sample Number: SC ;W;10

Operator : SEG

Study : DROW

Instrument : HP\_T AutoSampler : HP 7673A Rack/Vial : 0/0 Channel: A A/D mV Range: 1000

Interface Serial #: 4118271220 Data Acquisition Time: 09/28/95 17:16

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_309.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_309.rst
Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins
Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 10.00

\_\_\_\_\_\_

#### Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALUE	DIESEL A	MT. Component Name	Raw Amount	
1	2.853	21168.00	3656.67		5.0000e5	0.506			0.0423	
2	3.210	18094.53	4080.22		5.0000e5	0.506			0.0362	
3	3.328	127241.69	19095.49		5.0000e5	0.506			0.2545	
4	3.690	183889.50	30284.73		5.0000e5	0.506		99	0.3678	o/ ·
5	3.964	31644.00	3789.38	E۷	4.9999e5	0.506			0.0633	103%
6	4.114	111319.31	20538.90	W	5.0000e5	0.506	6 560.69	99	0.2226	109
7	4.339	29034.94	4407.12	V۷	5.0000e5	0.506	6 560.69	99		•
8	4.411	43141.09	5258.85	W	5.0000e5	0.506	6 560.69	99	0.0863	
9	4.583	24744.52	4651.84	٧V	5.0000e5	0.506	6 560.69	9.9	0.0495	
10	4.665	19175.61	4176.78	٧٧	5.0000e5	0.506	6 560.69	99	0.0384	
11	4.772	18171.38	3727.57	W	4.9999e5	0.506	6 560.69	99	0.0363	
12	4.835	21861.06	4317.94	W	4.9999e5	0.506	6 560.69	99	0.0437	
13	4.951	18938.06	4165.56	٧٧	5.0000e5	0.506	6 560.69	99	0.0379	
14	5.019	49915.72	5017.68	٧V	5.0000e5	0.506	6 560.69	99	0.0998	
15	5.392	44888,34	7372.67	W	5.0000e5	0.506	6 560.69	99	0.0898	
16	5.479	35651.63	4530.55	W	5.0000e5	0.506	6 560.69	99	0.0713	
17	5.689	25730.36	3424.83	W	4.9999e5	0.506	6 560.69	99	0.0515	
18	5.829	29760.78	2455.44	W	5.0000e5	0.506	6 560.69	99	0.0595	
19	6.129	77026.88	2433.24	V۷	5.0000e5	0.506	6 560.69	99	0.1541	
20	7.182	28046.19	1751.49	W	5.0000e5	0.506	6 560.69	99	0.0561	
21	7.587	82413.13	2012.23	V۷	1778.5000	0.506	6 560.69	99 2-FLUOROBIPHENYL	46.3386	
22	8.129	24336.00	1352.69	VV	4.9999e5	0.506	6 560.69	99	0.0487	
23	8.568	6764.94	725.52	VV	5.0000e5	0.506	6 560.69	99	0.0135	
24	8.711	18713.63	685.27	W	5.0000e5	0.506	6 560.69	99	0.0374	
25	9.758	2620.50	222.95	VB	1778.5000	0.506	6 560.69	99 Total Petroleum Hy	ydr 1.4734	
26	11.063 /	12290.75	2102.75	ΒV	1883.5000	0.506	6 560.69	99 o-Terphenyl	6.5255	
27	11.970	229.38	39.21		5.0000e5	0.506		•	0.0005	

1106812.00 146277.61

13.6779 15138.8994

56.3565

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1	7.587 11.063	82413.13 12290.75	2012.23 BV 2102.75 VV		0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	46.3386 6.5255	
		94703.88	4114.98		1.0132	95.9521		52.8640	

110.68-1.22 (0.50404)(20/100X10)

END

## Chromatogram

Sample Name: 9509863-02B

: l:\data\tchrom\pest\hp\_t\T\_\_309.raw FileName

: DIESELT.ins

Start Time : 0.50 min Scale Factor: 1

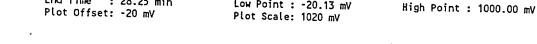
End Time : 28.25 min

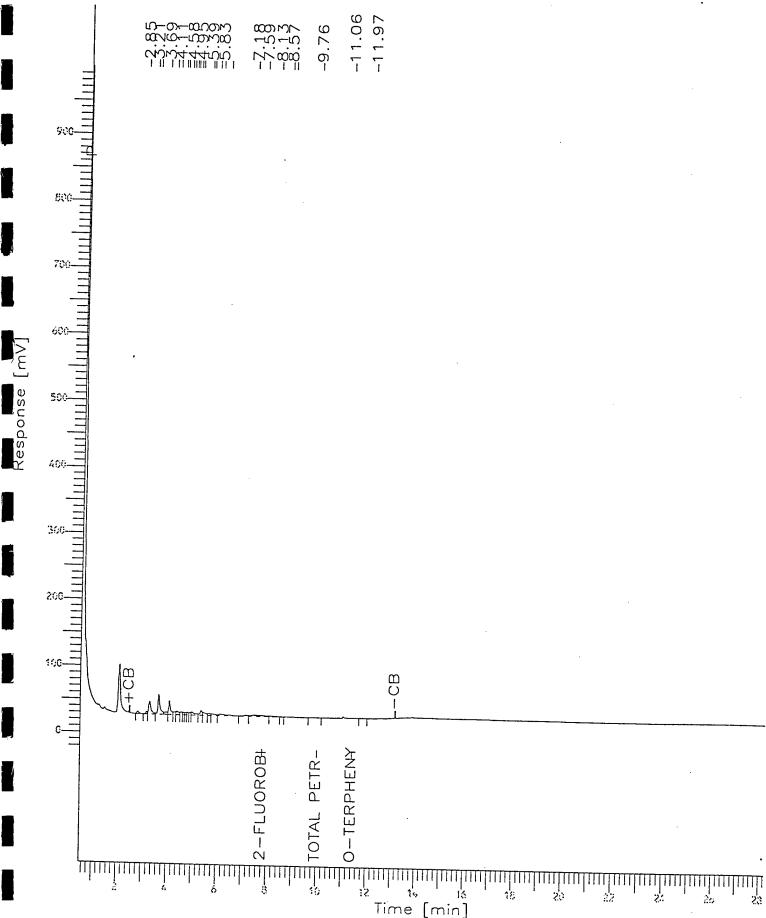
Sample #: SC ;W;10 Date: 09/28/95 17:44

Time of Injection: 09/28/95 17:16

Low Point : -20.13 mV

Page 1 of 1







8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

DATE: 10/11/

## Certificate of Analysis No. H9-9509863-03

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

**PROJECT NO: 1315-193** 

PROJECT: Optech/Minneapolis

SITE: Minneapolis ANGB

MATRIX: WATER

SAMPLED BY: Operational Technology

**SAMPLE ID: 651-002MW** 

DATE SAMPLED: 09/21/95 13:00:0 DATE RECEIVED: 09/22/95

ANAI	LYTICAL DATA		
PARAMETER	RESULTS	DETECTION LIMIT	n unit
GC/FID Diesel-Extractables WI LUFT DRO Analyzed by: SEG Date: 09/28/95 17:51:00	0.70		mg/
Liquid-liquid extraction METHOD 3510 *** Analyzed by: DB Date: 09/26/95 10:00:00	09/26/95		ĺ
GC/FID Gasoline-Purgeables WI LUFT GRO Analyzed by: RR Date: 09/26/95 03:09:00	0.27		mg/
Acid Digestion-Aqueous, ICP METHOD 3010 *** Analyzed by: MM Date: 09/28/95	09/28/95		
Lead, Total METHOD 6010 *** Analyzed by: JM Date: 09/29/95	ND	0.1	mg/

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, FPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

## Certificate of Analysis No. H9-9509863-03

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/95

PROJECT: Optech/Minneapolis

SITE: Minneapolis ANGB

SAMPLED BY: Operational Technology

**SAMPLE ID:** 651-002MW

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/21/95 13:00:00

DATE RECEIVED: 09/22/95

ANALYTICAL DATA										
PARAMETER	RESULTS	PQL*	UNITS							
Acetone	ND	100	ug/L							
Benzene	8	5	ug/L							
Bromodichloromethane	ND	5	ug/L							
Bromoform	ND	5	ug/L							
Bromomethane	ND	10	ug/L							
2-Butanone	ND	20	ug/L							
Carbon Disulfide	ND	5	ug/L							
Carbon Tetrachloride	ND	5	ug/L							
Chlorobenzene	ND	5	ug/L							
Chloroethane	ND	10	ug/L							
2-Chloroethylvinylether	ND	10	$\mathtt{ug}/\mathtt{L}$							
Chloroform	ND	5	ug/L							
Chloromethane	ND	10	ug/L							
Dibromochloromethane	ИD	5	ug/L							
1,1-Dichloroethane	ND	5	ug/L							
1,1-Dichloroethene	ND	5	$\mathtt{ug}/\mathtt{L}$							
1,2-Dichloroethane	ND	5	$\mathtt{ug}/\mathtt{L}$							
total-1,2-Dichloroethene	ND	5	$\mathtt{ug}/\mathtt{L}$							
1,2-Dichloropropane	ND	5	ug/L							
cis-1,3-Dichloropropene	ND	5	ug/L							
trans-1,3-Dichloropropene	ND	5	ug/L							
Ethylbenzene	ND	5	$\mathtt{ug}/\mathtt{L}$							
2-Hexanone	ND	10	$\mathtt{ug}/\mathtt{L}$							
Methylene Chloride	ND	5	ug/L							
4-Methyl-2-Pentanone	ND	10	$\mathtt{ug}/\mathtt{L}$							
Styrene	ND	5	ug/L							
1,1,2,2-Tetrachloroethane	ND	5	ug/L							
Tetrachloroethene	ND	5	ug/L							
Toluene	ND	5	ug/L							
1,1,1-Trichloroethane	ND	5	ug/L							
1,1,2-Trichloroethane	ND	5	ug/L							
Trichloroethene	ND	5	ug/L							
Trichlorofluoromethane	ND	5	ug/L							
Vinyl Acetate	ND	10	ug/L							
Vinyl Chloride	ND	10	ug/L							
Xylenes (total)	50	5	ug/L							

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

## Certificate of Analysis No. H9-9509363-03

Operational Tech

**SAMPLE ID: 651-002MW** 

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	96	76	114
Toluene-d8	50 ug/L	98	88	110
4-Bromofluorobenzene	50 ug/L	100	86	115

ANALYZED BY: GT DATE/TIME: 09/24/95 20:13:00

METHOD: 8240, Volatile Organics - Water

\* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

Page 1

Bata File: /chem/m.i/m950924.b/m267s02.d

Report Date: 04-Oct-1995 16:38

#### SPL Houston Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950924.b/m267s02.d

ab Smp Id: 9509863-03A-8240W nj Date : 24-SEP-1995 20:13

Operator : GT Inst ID: m.i

inp Info : 9509863-03A-8240W/1X sc Info : M267W1/M267B01/M267CC1

Comment

4ethod : /chem/m.i/m950924.b/mvoclpw.m

th Date: 02-Oct-1995 15:57 george Quant Type: ISTD Cal Date : 24-SEP-1995 17:22 Cal File: m267cc1.d

Als bottle: 8

ll Factor: 1.000 Integrator: HP RTE Compound Sublist: normal.sub Target Version: 3.10

							CC	ONCENTRA	ATIONS
		QUANT SIG					ON-C	COLUMN	FINAL
( po	unds	MASS	RT	EXP RT REI	L RT	RESPONSE	(	ng)	( ug/L)
	= = = = = = = = = = = = = = = = = = = =	====	==	====== ===			==:	-===	*****
21	Benzene	78.00	5.558	5.558 (0.	.910)	82848		40	8
м 39	Xylene (Total)	106.00				254260		250	50
41	m,p-Xylene(s)	106.00	11.993	11.980 (1.	.061)	254260		250	50
* 16	Bromochloromethane	128.00	4.244	4.244 (1.	.000)	59631		250	
* 23	1,4-Difluorobenzene	114.00	6.104	6.089 (1.	.000)	374048		250	
* 37	Chlorobenzene-d5	117.00	11.299	11.286 (1.	.000)	385650		250	
\$18	1,2-Dichloroethane-d4	102.00	5.056	5.056 (1.	.191)	24062		240	48
\$31	Toluene-d8	98.00	8.790	8.776 (0.	.778)	506421		240	49
\$ 46	Bromofluorobenzene	95.00	13.528	13.516 (1.	.197)	282997		250	50

Data File: /chem/m.i/m950924.b/m267s02.d

Report Date: 28-Sep-1995 15:32

#### SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i Lab File ID: m267s02.d

Lab Smp Id:

Analysis Type: VOA Quant Type: ISTD

Operator: GT

Method File: /chem/m.i/m950924.b/mvoclpw.m

Misc Info: M267W1/M267B01/M267CC1

Calibration Date: 09/24/95

Calibration Time: 1722

Level: LOW

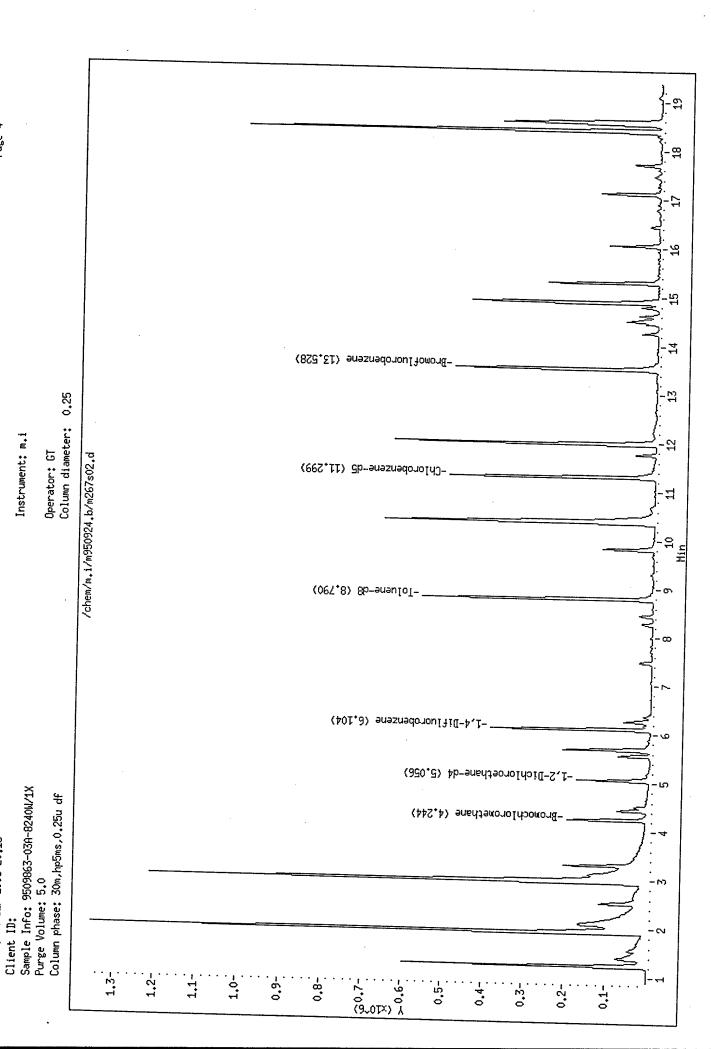
Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
16 Bromochloromethane 23 1,4-Difluorobenzene 37 Chlorobenzene-d5	64827 417600 429645	208800		59631 374048 385650	

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
16 Bromochloromethane 23 1,4-Difluorobenzene 37 Chlorobenzene-d5	4.24	3.74	4.74	4.24	0.00
	6.09	5.59	6.59	6.10	0.24
	11.29	10.79	11.79	11.30	0.12

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Page 4

Data File: /chem/m.i/m950924.b/m267s02.d

Date : 24-SEP-1995 20:13

Data File: /chem/m.i/m950924.b/m267s02.d

Date: 24-SEP-1995 20:13

Client ID:

Sample Info: 9509863-03A-8240W/1X

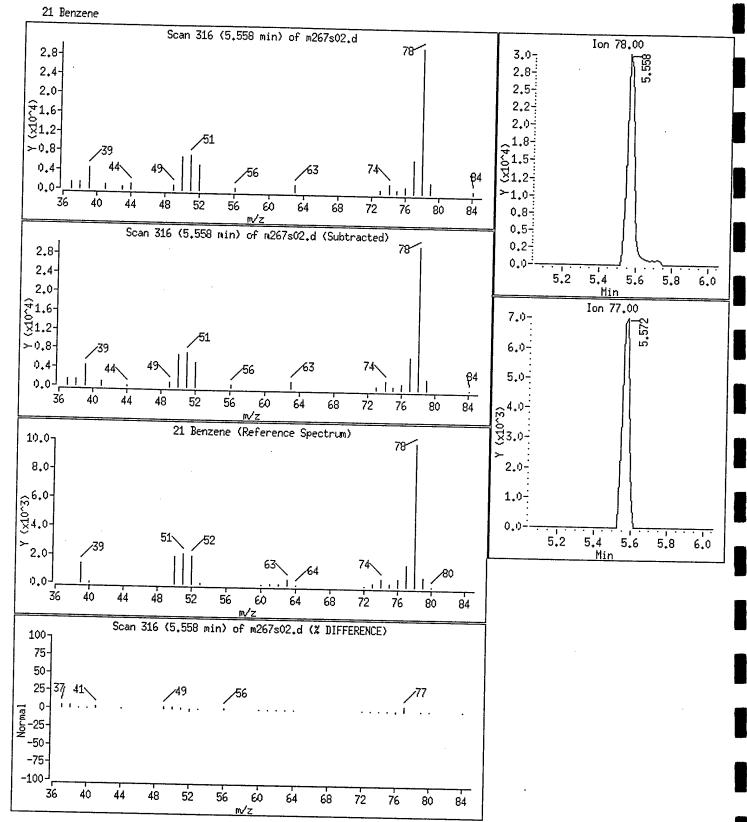
Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df

Instrument: m.i

Operator: GT

Column diameter: 0.25



Data File: /chem/m.i/m950924.b/m267s02.d

Date: 24-SEP-1995 20:13

Client ID:

Sample Info: 9509863-03A-8240W/1X

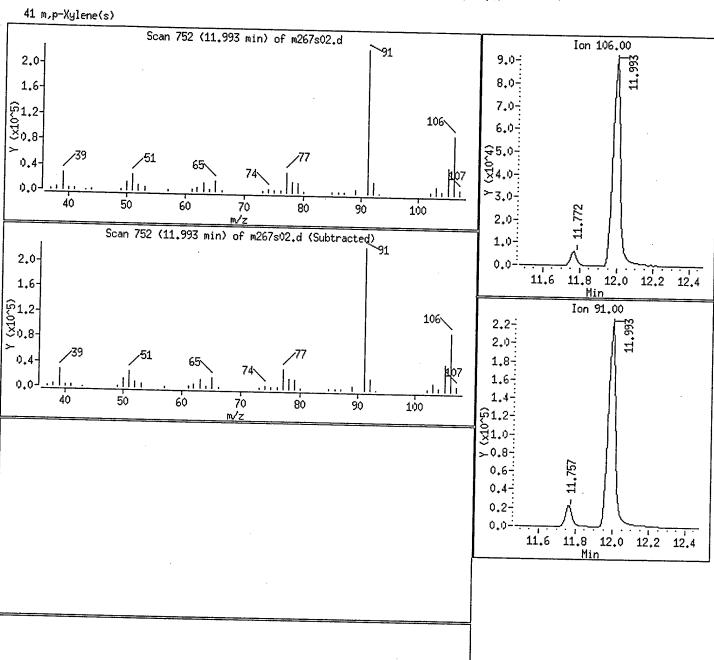
Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df

Instrument: m.i

Operator: GT

Column diameter: 0.25



Software Version: 3.2 <16C2O> Software Version: 3.2 <16C2
Sample Name : 9509863-03C
Sample Number: SC ;W;1
Operator : RR
Instrument : HP R

Time : 09/26/95 03:32 Study : MODWG;1;PQL

Instrument : HP\_R

AutoSampler : NONE

Channel: B A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial #: 3291270006 Data Acquisition Time: 09/26/95 03:09

LAS-Delay Time : 0.00 min. End Time : 21.55 min. Sampling Rate : 5.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_r\RR\_433.raw Result File : l:\data\tchrom\btex\hp\_r\RR\_433.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXR.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDR.prc Sample File : L:\DATA\TCHROM\BTEX\METHODS\RWG09075.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXR.seq

Inj. Volume : 2 ul Sample Amount : 1.0000

Area Reject : 100.00

Dilution Factor : 1.00

PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT	RAW AMT. PURFID PPM
1	2.701	17637.73	2966.25 BB	1.0000e6	5.1200	0.5668			
	3.132	217655.08	34006.01 BV	1.0000e6	5.1200	0.5668		0.0176	
. 3	3.434	16863.71	2607.32 VB	3.3353e5	5.1200	0.5668	2-metylpentane	0.2177	
5 6	4.392	10624.84	1043.80 BB	1.0000e6	5.1200	0.5668	Zimetytpentane	0.0506	0.5668
₹ 5 3 6	5.418	15606.19	3012.80 BV	4.7343e5	5.1200	0.5668	Benzene	0.0106	0.5668
-	5.503	21012.48	3029.25 VV	2.2933e5	5.1200	0.5668		0.0330	0.5668
,	5.868	156102.06	24129.60 VB	1955.0482	5.1200	0.5668	2,2,4-trimethylpenta	0.0916	0.5668
8	6.891	343457.59	48943.99 BV		5.1200	0.5668	1,4-DIFLUOROBENZENE	79.8456	0.5668
9	7.453	3421.40	382.36 VB	1.0000e6	5.1200	0.5668	TFT	0.0000	0.5668
10	8.036	1696.75	144.68 BB	1.0000e6	5.1200	0.5668		0.0034	0.5668
11	8.439	2243.23	249.81 BV	9.9999e5	5.1200			0.0017	0.5668
12	8.655	1953.48	240.24 VB	1.0000e6	5.1200	0.5668		0.0022	0.5668
13	9.751	1499.50	252.57 BV	1.0000e6	5.1200	0.5668		0.0020	0.5668
14	9.888	4884.95	542.22 VB	1.0000e6	5.1200	0.5668		0.0015	0.5668
15	10.531	23698.72	2726.10 BB	1.0000e6	5.1200	0.5668		0.0049	0.5668
16	13.830	7565.34	2071.05 BV	2.7997e5		0.5668		0.0237	0.5668
17	14.003	95547.77	28802.13 VV	6.0565e5	5.1200	0.5668	Ethyl_Benzene	0.0270	0.5668
18	14.407	1854.84	295.21 VV	2.0064e6	5.1200		m - Xylene	0.1578	0.5668
19	14.600	1955.73	383.27 VV	9.9999e5	5.1200		o-Xylene	0.0009	0.5668
20	14.795	83631.09	40544.61 VB	781.5015	5.1200	0.5668		0.0020	0.5668
21	15.086	4781.77	2310.26 BB		5.1200	0.5668	4-BROMOFLUOROBENZENE	107.0133	0.5668
22	15.164	6339.41	3458.87 BB	9.9999e5	5.1200	0.5668		0.0048	0.5668
· 23	15.317	4007.88	1619.05 BB	1.0000e6	5.1200	0.5668		0.0063	0.5668
24	15.419	29981.88	16719.31 BE	9.9999e5	5.1200	0.5668		0.0040	0.5668
25	15.542	1474.00		4.7343e5	5.1200	0.5668	1,2,4-trimethylbenze	0.0633	0.5668
26	15.642	15732.58	579.28 EV	1.0000e6	5.1200	0.5668		0.0015	0.5668
27	15.753	4939.79	9004.16 VB	9.9999e5	5.1200	0.5668		0.0157	0.5668
28	15.823	1400.43	2727.52 BV	1.0000e6	5.1200	0.5668		0.0049	0.5668
29	16.001	2456.92	891.90 VB	1.0000e6	5.1200	0.5668		0.0014	0.5668
30	16.199	2528.70	738.46 BB	1.0000e6	5.1200	0.5668		0.0025	0.5668
31	16.385	2987.85	739.89 BB	1.0000e6	5.1200	0.5668		0.0025	0.5668
	19.787		1462.48 BB	1.0000e6	5.1200	0.5668		0.0023	0.5668
		1565.55	257.56 BB	1.0000e6	5.1200	0.5668		0.0030	0.5668
		1107109.00	236881.98		163.8400	18.1389		187.6187	18.1389

Group Report For :

13.

Peak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 5 7 8 9 10	3.434 5.418 5.503 6.401 9.176 13.830 14.003 14.407 15.419	16863.71 15606.19 21012.48 0.00 0.00 7565.34 95547.77 1854.84 29981.88		3.3353e5 4.7343e5 2.2933e5 2.7997e5 6.0565e5 2.0064e6 4.7343e5	5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200	0.0965 0.0965 0.0965 0.0965 0.0965 0.0965	2-metylpentane Benzene 2,2,4-trimethylpenta Heptane Toluene Ethyl_Benzene m - Xylene o-Xylene 1,2,4-trimethylbenze	0.0506 0.0330 0.0916 0.0000 0.0000 0.0270 0.1578 0.0009 0.0633	0.0965 0.0965

188432.22 56537.07 46.0800 0.8683 0.4242 0.8683

Group Report For : SURROGATE

S KA

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4 6 1	5.868 6.891 14.795	156102.06 343457.59 83631.09	24129.60 BB 48943.99 VV 40544.61 BB		5.1200 5.1200 5.1200	0.2986	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	79.8456 0.0000 107.0133	0.2986
		583190.75	113618.20		15.3600	0.8958		186.8590	0.8958

END

κeport Stored in ASCII File: l:\data\tchrom\btex\hp\_r\RR\_\_433.TXO

Chromatogram Sample #: SC ;W;1 Date : 09/26/95 03:32 Sample Name: 9509863-03C Page 1 of 1 : l:\data\tchrom\btex\hp\_r\RR\_\_433.raw FileName Method : BTEXR.ins Time of Injection: 09/26/95 03:09 End Time : 21.55 min Plot Offset: 5 mV Start Time : 0.00 min Low Point : 5.01 mV High Point: 62.28 mV Scale Factor: Plot Scale: 57 mV -10.53x 44vvvv 000 x 4x04v 000 v -00x4v 000 -19.79\_6.89 \_7.45 Response BENZENE 1,4-DIFLU HEPTANE TFT

Retention Time

[min]

oftware Version: 3.2 <16C2O>

Sample Name : 9509863-038

: 09/28/95 18:19 Time Study : DROW

Sample Number: SC ;W

: SEG perator

Channel: A

A/D mV Range: 1000

nstrument : HP\_T AutoSampler : HP\_7673A Rack/Vial : 0/0

nterface Serial # : 4118271220 Data Acquisition Time: 09/28/95 17:51

Delay Time : 0.50 min. End Time : 28.25 min. ampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_310.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_310.rst instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins rocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
ample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHOOS\DIESELT.seq

nj. Volume : 1 ul ample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

## Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF	VALUE	DIESEL AMT. PPM	Component Name	Raw Amount
1	2.693	13035.41	2154.31 BV	5.0000e5		0.5066	354.1607		0.0261
2	2.854	19779.27	4552.66 VV	5.0000e5		0.5066	354.1607		0.0396
<b>2</b> 3	2.915	21977.88	4320.78 VV	5.0000e5		0.5066	354.1607		0.0440
4	3.146	38873.91	5403.92 VV	5.0000e5		0.5066	354.1607		0.0778
5	3.332	92571.31	12911.66 VV	5.0000e5		0.5066			0.1851
6	3.493	91992.00	13165.97 VV	5.0000e5		0.5066			0.1840
_ ž	3.686	203424.63	32911.78 VV	5.0000e5		0.5066	354.1607		0.4069
8	4.172		166408.84 VE	5.0000e5		0.5066	354.1607		2.5699
9	4.297	53901.00	9518.51 EV	4.9999e5		0.5066			0.1078
10	4.407	58518.67	10139.72 VV	5.0000e5		0.5066	354.1607		0.1170
11	4.693	634481.38	78534.28 VV	5.0000e5		0.5066	354.1607		1.2690
12	4.966	181681.28	21818.27 VV	5.0000e5		0.5066			0.3634
13	5.149	48658.81	6857.35 VV	4.9999e5		0.5066			0.0973
14	5.377	83385.13	10950.40 VV	5.0000e5		0.5066			0.1668
15	5.476	24839.91	6038.36 VV	5.0000e5		0.5066			0.0497
<b>1</b> 6	5.550	19268.70	4420.88 VV	5.0000e5		0.5066			0.0385
17	5.710	72702.34	11027.85 VV			0.5066			0.1454
18	5.795	130946.44	17757.45 VV	4.9999e5		0.5066			0.2619
19	5.990	49841.30	8327.66 VV			0.5066			0.0997
20	6.079	54608.00	6569.72 VV			0.5066		•	0.1092 0.0270
21	6.282	13490.73	3814.52 VV			0.5066			0.0663
22	6.393	33142.19	4760.26 VV			0.5066			0.0257
23	6.501	12835.31	3377.00 VV			0.5066			0.0874
24	6.645	43687.22				0.5066			0.0248
25	6.728	12376.86				0.5066			0.0307
26	6.808	15326.55	2723.39 VV			0.5066			0.0621
<b>27</b>	6.945	31024.09				0.5066			0.0486
28	7.017	24295.11	5255.94 VV			0.5066			2.1486
<b>29</b>	7.136 7.491		134803.33 VV 28926.22 VV			0.5066			0.6026
30 31	7.715	301321.41 108190.72				0.5066			0.2164
32	7.865	122846.56				0.5066		2-FLUOROBIPHENYL	69.0731
33	8.000	34582.05				0.5066			0.0692
34	8.119	135534.69				0.5066			0.2711
35	8.223	132350.22				0.5066			0.2647
36	8.405	157155.59				0.5066			0.3143
37	8.558	56723.31				0.5066			0.1135
38	8.677	173590.78		_		0.506			0.3472
39	8.962	122841.72				0.506	5 354.1607		0.2457
40	9.135	132816.72				0.506	6 354.1607		0.2656
41	9.270	60331.64			;	0.506	6 354.1607		0.1207
_ 42		77862.09		/ 5.0000e5	;	0.506	6 354.1607		0.1557
43		103031.16				0.506	6 354.1607		0.2061
44		36653.23			5	0.506	6 354.1607		0.0733
45		52730.11			5	0.506			0.1055
46		119412.88			5	0.506			0.2388
<b>47</b>		71684.50		/ 1778.5000	)	0.506		Total Petroleum Hydr	40.3062
48	10.237	49390.94	7059.44 V			0.506			0.0988
49		65865.8	1 6992.65 V	v 4.9999e5	5	0.506	6 354.1607		. 0.1317

50	10.533	114992.44	6087.29 VV	5.0000e5	0.5066	354.1607		0.2300	
51	10.952	14694.59	3765.00 VV	5.0000e5	0.5066	354.1607		0.0294	
52	11.042	168078.78	46565.51 VE	5.0000e5	0.5066	354.1607		0.3362	
53	11.144	77993.00	2305.57 EV	1883.5001	0.5066	354.1607	o-Terphenyl	41.4086	
54	11.734	49111.25	1962.07 VV	5,0000e5	0.5066	354.1607	•	0.0982	
55	12,461	3804.50	495.53 VV	5.0000e5	0.5066	354.1607		0.0076	
56	12.584	3671.06	427.90 VB	5.0000e5	0.5066	354.1607		0.0073	
57	12.857	835.00	223.34 BB	5.0000e5	0.5066	354.1607		0.0017	
58	13.088	3028.00	844.68 BB	5.0000e5	0.5066	354.1607		0.0061	
		6991071.50	929629.81		29.3822	20541.3242		164.2249	<b></b>

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.865 11.144	122846.56 77993.00	17735.13 BV 2305.57 VV		0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	69.0731 41.4086	
		200839.56	20040.69		1.0132	20.3487		110.4817	

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_310.TX0

69.10-16.80 (0. SCACA)(2.0/080)

#### Chromatogram

Sample Name: 9509863-038

: l:\data\tchrom\pest\hp\_t\T\_\_\_310.raw

: DIESELT.ins

Start Time : 0.50 min

Plot Offset: -17 mV

End Time : 28.25 min

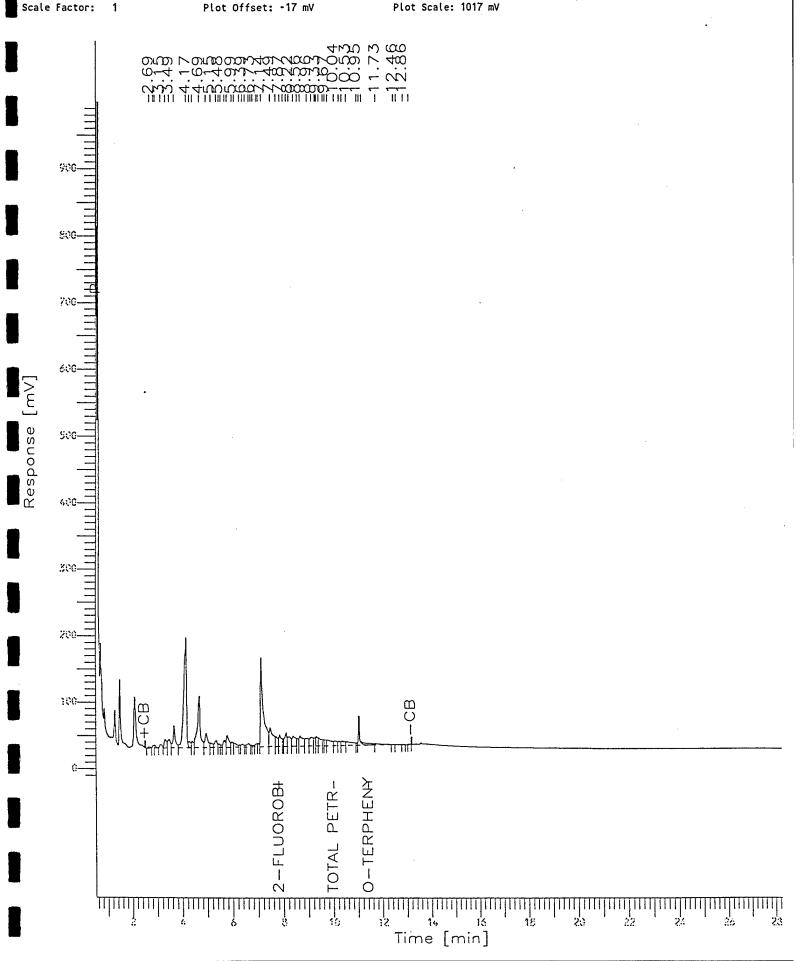
Sample #: SC ;W Date : 09/28/95 18:19

Time of Injection: 09/28/95 17:51

Low Point : -17.16 mV High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1017 mV





8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509863-04

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

DATE: 10/11/95

PROJECT: Optech/Minneapolis

SITE: Minneapolis ANGB

SAMPLED BY: Operational Technology

SAMPLE ID: 651-002MWA

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/21/95 11:30:00

DATE RECEIVED: 09/22/95

PARAMETER	ANALY	TICAL DATA		
PARAMETER		RESULTS	DETECTION	UNIT
GC/FID Diesel-Ext WI LUFT DRO Analyzed by: SEC Date: 09/		ND	LIMIT 0.1	mg/I
Liquid-liquid ext METHOD 3510 *** Analyzed by: DB Date: 09/	raction 26/95 10:00:00	09/26/95		1
GC/FID Gasoline-P WI LUFT GRO Analyzed by: RR		ND		mg/I
Acid Digestion-Aq METHOD 3010 *** Analyzed by: MM Date: 09/		09/28/95		1
Lead, Total METHOD 6010 *** Analyzed by: JM Date: 09/2	29/95	ND	0.1	mg/L

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509863-04

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/95

PROJECT: Optech/Minneapolis

SITE: Minneapolis ANGB

SAMPLED BY: Operational Technology

SAMPLE ID: 651-002MWA

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/21/95 11:30:00

DATE RECEIVED: 09/22/95

ANALYTICAL DATA										
PARAMETER	RESULTS	PQL*	UNITS							
Acetone	ND	100	ug/L							
Benzene	ND	5	ug/L							
Bromodichloromethane	ND	5	ug/L							
Bromoform	ND	5	ug/L							
Bromomethane	ND	10	ug/L							
2-Butanone	ND	20	ug/L							
Carbon Disulfide	ND	5	ug/L							
Carbon Tetrachloride	ND	5	ug/L							
Chlorobenzene	ND	5	ug/L							
Chloroethane	ND	10	ug/L							
2-Chloroethylvinylether	ND	10	ug/L							
Chloroform	ND	5	ug/L							
Chloromethane	ND	10	ug/L							
Dibromochloromethane	ND	5	ug/L							
1,1-Dichloroethane	ND	5	$\mathtt{ug}/\mathtt{L}$							
1,1-Dichloroethene	ND	5	ug/L							
1,2-Dichloroethane	ND	5	ug/L							
total-1,2-Dichloroethene	ND	5	$\mathtt{ug}/\mathtt{L}$							
1,2-Dichloropropane	ND	5	ug/L							
cis-1,3-Dichloropropene	ND	5	${\tt ug/L}$							
trans-1,3-Dichloropropene	ND	5	ug/L							
Ethylbenzene	ND	5	ug/L							
2-Hexanone	ND	10	ug/L							
Methylene Chloride	ND	5	ug/L							
4-Methyl-2-Pentanone	ND	10	ug/L							
Styrene	ND	5	ug/L							
1,1,2,2-Tetrachloroethane	ND	. 5	ug/L							
Tetrachloroethene	ND	5	$\mathtt{ug}/\mathtt{L}$							
Toluene	ND	5	ug/L							
1,1,1-Trichloroethane	ND	5	ug/L							
1,1,2-Trichloroethane	ND	5	$\mathtt{ug}/\mathtt{L}$							
Trichloroethene	ND	5	ug/L							
Trichlorofluoromethane	ND	5	$\mathtt{ug}/\mathtt{L}$							
Vinyl Acetate	ND	10	ug/L							
Vinyl Chloride	ND	10	$\mathtt{ug}/\mathtt{L}$							
Xylenes (total)	ND	5	ug/L							

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE **HOUSTON, TEXAS 77054** PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509863-04

Operational Tech

SAMPLE ID: 651-002MWA

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT	
1,2-Dichloroethane-d4	50 ug/L	96	76	114	
Toluene-d8	50 ug/L	102	88	110	
4-Bromofluorobenzene	50 ug/L	98	86	115	

ANALYZED BY: GT DATE/TIME: 09/24/95 20:40:00

METHOD: 8240, Volatile Organics - Water

\* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

Data File: /chem/m.i/m950924.b/m267s03.d

Report Date: 02-Oct-1995 17:17

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950924.b/m267s03.d

Lab Smp Id: 9509863-04A-8240W Inj Date : 24-SEP-1995 20:40

Operator : GT Inst ID: m.i

Smp Info : 9509863-04A-8240W/1X
Misc Info : M267W1/M267B01/M267CC1

Comment

Method : /chem/m.i/m950924.b/mvoclpw.m

Meth Date : 02-Oct-1995 15:57 george Quant Type: ISTD Cal Date : 24-SEP-1995 17:22 Cal File: m267cc1.d

Als bottle: 9

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

				CONCENTRATIONS		
	QUANT SIG				ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	====	==	##### ####	=======	======	
* 16 Bromochloromethane	128.00	4.257	4.244 (1.000	) 59251	250	
* 23 1,4-Difluorobenzene	114.00	6.102	6.089 (1.000	379987	250	
* 37 Chlorobenzene-d5	117.00	11.297	11.286 (1.000	386633	250	
\$ 18 1,2-Dichloroethane-d4	102.00	5.069	5.056 (1.19)	.) 23663	240	48
\$ 31 Toluene-d8	98.00	8.788	8.776 (0.778	527144	250	51
\$ 46 Bromofluorobenzene	95.00	13.525	13.516 (1.19)	279332	240	49

Data File: /chem/m.i/m950924.b/m267s03.d

Report Date: 28-Sep-1995 15:32

#### SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i

Lab File ID: m267s03.d

Lab Smp Id:

Analysis Type: VOA Quant Type: ISTD

Operator: GT

Method File: /chem/m.i/m950924.b/mvoclpw.m

Misc Info: M267W1/M267B01/M267CC1

Calibration Date: 09/24/95

Calibration Time: 1722

Level: LOW

Sample Type: WATER

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane	64827	32414	129654	59251	-8.60
23 1,4-Difluorobenzene	417600	208800	835200	379987	-9.01
37 Chlorobenzene-d5	429645	214822	859290	386633	-10.01
		\'		<b> </b> '	1

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane	4.24	3.74	4.74	4.26	0.32
23 1,4-Difluorobenzene	6.09	5.59	6.59	6.10	0.21
37 Chlorobenzene-d5	11.29	10.79	11.79	11.30	0.10

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: m.i

Data File: /chem/m.i/m950924.b/m267s03.d
Date : 24-SEP-1995 20:40

Software Version: 3.2 <16C20>

Sample Name : 9509863-04A Sample Number: SC ;W;1

Time Study

: 09/26/95 04:03 : MODWG;1;PQL

Operator : RR

Channel: B

A/D mV Range: 1000

Instrument : HP\_R
AutoSampler : NONE
Rack/Vial : 0/0
Interface Serial # :

Interface Serial #: 3291270006 Data Acquisition Time: 09/26/95 03:41

: 0.00 min. : 21.55 min. 🚨 Delay Time ... End Time Sampling Rate : 5.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_r\RR\_\_434.raw Result File : l:\data\tchrom\btex\hp\_r\RR\_434.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXR.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDR.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\RWG09075.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXR.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00

#### PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	3.141	6050.03	643.99 BB	3.1727e5	5.1200	0.2805	2-metylpentane	0.0191	0.2805
2	5.879	141845.02	22928.94 BB		5.1200		1,4-DIFLUOROBENZENE	76.2721	0.2805
3	6.901	326711.34			5.1200		TFT	0.0000	0.2805
4	12.692	1287.17	241.11 BB		5.1200	0.2805		0.0013	0.2805
5	12.990	1366.68	221.69 BB	1.0000e6	5.1200	0.2805		0.0014	0.2805
6	14.010	362.31	102.33 BB	5.7612e5	5.1200	0.2805	m - Xylene	0.0006	0.2805
7	14.799	67090.06	32056.85 BB	743.3972	5.1200	0.2805	4-BROMOFLUOROBENZENE	90.2479	0.2805
. 8	15.325	455.08	175.38 BB	4.5035e5	5.1200	0.2805	1,2,4-trimethylbenze	0.0010	0.2805
. 9	15.758	259.86	75.42 BB	1.0000e6	5.1200	0.2805	•	0.0003	0.2805
10	19.776	2359.37	301.97 BB		5.1200	0.2805		0.0024	0.2805
		547786.88	102921.98	,	51.2000	2.8047	,	166.5460	2.8047

#### Group Report For :

Peak : #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
. 1	3.141	6050.03	643.99 BB	3.1727e5	5.1200	0.0035	2-metylpentane	0.0191	0.0035
2	5.344	0.00	0.00 VV		5.1200	0.0035	Benzene	0.0000	0.0035
3	5.500	0.00			5.1200	0.0035	2,2,4-trimethylpenta	0.0000	0.0035
5	6.401	0.00	0.00 VV		5.1200	0.0035	Heptane	0.0000	0.0035
7	9.176	0.00	0.00 VV		5.1200	0.0035	Toluene	0.0000	0.0035
8	13.787	0.00	0.00 VV		5.1200	0.0035	Ethyl_Benzene	0.0000	0.0035
9	14.010	362.31	102.33 BB	5.7612e5	5.1200	0.0035	m - Xylene	0.0006	0.0035
10	14.381	0.00	0.00 VV		5.1200	0.0035	o-Xylene	0.0000	0.0035
12	15.325	455.08	175.38 BB	4.5035e5	5.1200	0.0035	1,2,4-trimethylbenze	0.0010	0.0035
		6867.42	921.70		46.0800	0.0317		0.0207	0.0317

Group Report For : SURROGATE

Peak #	Ret Time [min]	Area [uV-sec]	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4 6 11	5.879 6.901 14.799	141845.02 326711.34 67090.06	22928.94 BB 1859.7245 46174.29 BB 32056.85 BB 743.3972	5.1200 5.1200 5.1200	0.2743	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	76.2721 0.0000 90.2479	
:		535646.44	101160.08	15.3600	0.8228		166.5200	0.8228

END

Sample #: SC ;W;1 Date : 09/26/95 04:03 Sample Name : 9509863-04A Page 1 of 1 : l:\data\tchrom\btex\hp\_r\RR\_\_434.raw ethod Time of Injection: 09/26/95 03:41 : BTEXR.ins tart Time : 0.00 min End Time : 21.55 min Low Point : 5.36 mV High Point: 59.65 mV cale Factor: 1 Plot Offset: 5 mV Plot Scale: 54 mV -14.80 -15.33 -15.76 -14.01-5.88 -6.90 55 Kesponse [mV] 15 2-METYLPE-BENZENE = 1,4-DIFLU -HEPTANE = ETHYL\_BEN = 0-XYLENE -TOLUENE [min] Retention Time

Software Version: 3.2 <16C20>

Sample Name : 9509863-048

Sample Number: SC ;W

Time Study

: 09/28/95 18:54 : DROW

: SEG Operator

Instrument : HP\_T

Channel: A

A/D mV Range: 1000

AutoSampler : HP 7673A Rack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 09/28/95 18:26

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_311.raw Result File : l:\data\tchrom\pest\hp\_t\T\_\_311.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject

: 100.00

Dilution Factor : 1.00

# Area/Concentration Report

Peak #	Ret Time [min]	e Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT	. Component Name	Raw Amount
1	2.688	12928.88	1456.30 BV	5.0000e5	0.5066	43.2609	• • • • • • • • • • • • • • • • • • • •	0.0259
2	2.927	36723.06	4957.54 VV		0.5066	43.2609		0.0239
3	3.141	46351.41	7501.09 VV		0.5066	43.2609		0.0927
4	3.416	57743.91	6608.12 VV		0.5066	43.2609		
5	3.620	35944.19	4023.45 VV		0.5066	43.2609		0.1155
6	3.784	8185.63	1746.31 VV		0.5066	43.2609		0.0719
7	3.893	19463.66	2417.04 VV		0.5066	43.2609		0.0164
8	4.100	7731.73	1053.30 VV		0.5066	43.2609		0.0389
9	4.253	9168.03	1068.43 VV		0.5066	43.2609		0.0155
10	4.448	15665.25	753.38 VV		0.5066	43.2609		0.0183
11	5.610	535.31	107.41 VB		0.5066	43.2609		0.0313
12	5.853	20076.13	2969.30 BV		0.5066	43.2609		0.0011
13	6.469	746.94	155.00 VV		0.5066	43.2609		0.0402
14	6.584	1145,00	178.04 VB		0.5066	43.2609		0.0015
15	7.259	164653.44	10123.48 BV		0.5066	43.2609		0.0023
16	7.568	293269.00	8534.36 VV	1778.5000	0.5066	43.2609	2-FLUOROBIPHENYL	0.3293
17	9.100	13655.31	703.50 VV	5.0000e5	0.5066	43.2609	2-FEGOROSIPHENTE	164.8968
18	9.761	4793.69	284.18 VB	1778.5000	0.5066	43.2609	Total Petroleum Hydr	0.0273
19	10.289	451.50	64.90 BB	5.0000e5	0.5066	43.2609	Total Petroteum Hydr	2.6954
20	10.451	332.50	77.92 BB	5.0000e5	0.5066	43.2609		0.0009
21	11.053		23758.27 BE	5.0000e5	0.5066	43.2609		0.0007
22	11.650	597.00	98.91 EB	1883.5000	0.5066	43.2609	a. Taanhaasal	0.2001
23	11.869	3743.50	410.83 BB	5.0000e5	0.5066	43.2609	o-Terphenyl	0.3170
				J.0000eJ		43.2009		0.0075
		853963.13	79051.06		11.6516	995.0012		169.0198

Group Report For : SURROGATES

END

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.568 11.650	293269.00 597.00	8534.36 BV 98.91 VB	1778.5000 1883.5000	0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	164.8968 0.3170	•••••••••••••••••••••••••••••••••••••••
		293866.00	8633.27		1.0132	29.7739		165.2138	

95.39-16.46-10.00 (0.50404)(20/100C)

#### Chromatogram

Sample Name: 9509863-04B

FileName : l:\data\tchrom\pest\hp\_t\T\_\_311.raw

Method : DIESELT.ins

tart Time : 0.50 min cale Factor: 1

End Time : 28.25 min Plot Offset: -21 mV Sample #: SC ;W

Date: 09/28/95 18:54

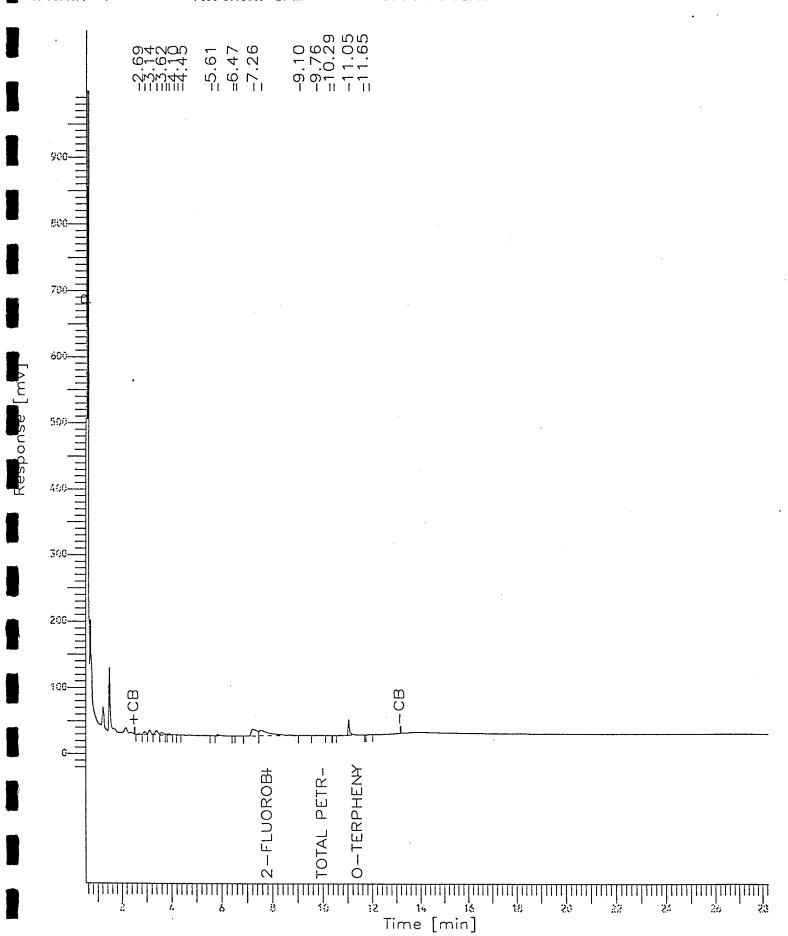
Time of Injection: 09/28/95 18:26

Low Point : -20.71 mV

High Point : 1000.00 mV

Page 1 of 1

Plot Scale: 1021 mV





# **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509863-05

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/11/9

PROJECT: Optech/Minneapolis
SITE: Minneapolis ANGB
SAMPLED BY: Provided by SPL

PROJECT NO: 1315-193
MATRIX: WATER
DATE SAMPLED: 09/13/95

SAMPLE ID: Trip Blank DATE RECEIVED: 09/22/95

ANALYTI	CAL DATA		
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
1,2-Dichloroethane	ND	5 .	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	. 5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L

METHOD: 8240, Volatile Organics - Water (continued on next page)



#### **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9509863-05

Operational Tech

SAMPLE ID: Trip Blank

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	96	76	114
Toluene-d8	50 ug/L	104	88	110
4-Bromofluorobenzene	50 ug/L	98	86	115

ANALYZED BY: GT DATE/TIME: 09/24/95 19:46:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

Data File: /chem/m.i/m950924.b/m267s01.d

Report Date: 28-Sep-1995 15:32

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950924.b/m267s01.d

Lab Smp Id:

Inj Date : 24-SEP-1995 19:46

: GT Operator Inst ID: m.i

Smp Info : 9509863-05A-8240W/1X Misc Info : M267W1/M267B01/M267CC1

Comment

Method : /chem/m.i/m950924.b/mvoclpw.m
Meth Date : 24-Sep-1995 18:00 george ( Quant Type: ISTD Cal Date : 24-SEP-1995 17:22 Cal File: m267cc1.d

Als bottle: 7

Dil Factor: 1.000 Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					CONCENTRA	TIONS
	QUANT SIG				ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng) .	( ug/L)
	====	==		======	======	======
* 16 Bromochloromethane	128.00	4.257	4.244 (1.000)	58300	250	
* 23 1,4-Difluorobenzene	114.00	6.116	6.089 (1.000)	380974	250	
* 37 Chlorobenzene-d5	117.00	11.311	11.286 (1.000)	379809	250	
\$ 18 1,2-Dichloroethane-d4	102.00	5.068	5.056 (1.191)	23512	240	48
\$ 31 Toluene-d8	98.00	8.802	8.776 (0.778)	526508	260	52
\$ 46 Bromofluorobenzene	95.00	13.524	13.516 (1.196)	276785	250	49

Page 2

Data File: /chem/m.i/m950924.b/m267s01.d

Report Date: 28-Sep-1995 15:32

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i

Lab File ID: m267s01.d

Lab Smp Id:

Analysis Type: VOA Quant Type: ISTD

Operator: GT

Method File: /chem/m.i/m950924.b/mvoclpw.m

Misc Info: M267W1/M267B01/M267CC1

Calibration Date: 09/24/95 Calibration Time: 1722

Level: LOW

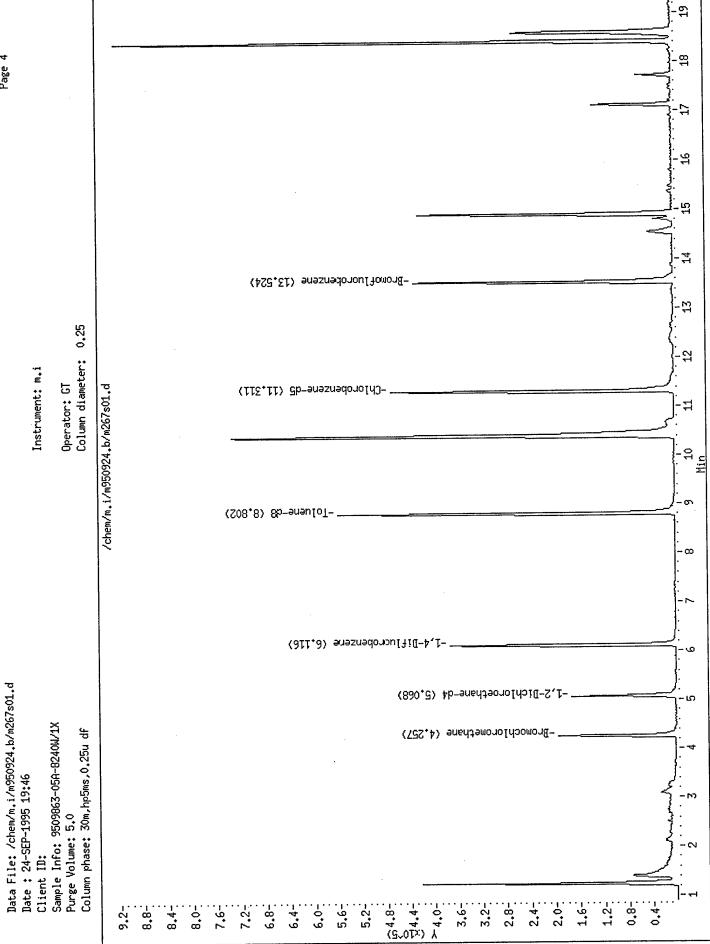
Sample Type: WATER

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane	64827	32414	129654	58300	-10.07
23 1,4-Difluorobenzene	417600	208800	835200	380974	-8.77
37 Chlorobenzene-d5	429645	214822	859290	379809	-11.60

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======		=======	=======	======
16 Bromochloromethane	4.24	3.74	4.74	4.26	0.31
23 1,4-Difluorobenzene	6.09	5.59	6.59	6.12	0.44
37 Chlorobenzene-d5	11.29	10.79	11.79	11.31	0.22
					-

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



# QUALITY CONTROL DOCUMENTATION

# 3A / / // WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9509832 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: MW-25

COMPOUND	SPIKE	SAMPLE	MS	MS	QC.
	ADDED	CONCENTRATION	CONCENTRATION	%	LIMITS
	(ug/L)	(ug/L)	(ug/L)	REC #	REC.
1,1-Dichloroethene Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50 50	0 0 0 0 0	50 54 56 52 47	100 108 112 104 94	61-145 71-120 76-127 76-125 75-125

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LI RPD	MITS REC.
1,1-Dichloroethene Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50 50	54 56 57 58 52	108 112 114 116 104	8 4 2 11 10	14 14 11 13 13	61-145 71-120 76-127 76-125 75-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

QC Officer



#### **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

page

1

# SPL Blank QC Report

Matrix: Aqueous Sample ID: BLANK Batch: M950922113701 Reported on: 10/03/95 11:31 Analyzed on: 09/22/95 13:14

Analyst: GT

# METHOD 624/8240 M265B01

Compound	Result	Detection Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
Acetone	ND	100	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
Carbon Disulfide	ND	. 5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ИD	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform   Notes	ND	5	ug/L

Notes

ND - Not detected.

QC Officer



# HOUSTON LABORATORY,

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

page

# SPL Blank QC Report

Matrix: Aqueous Sample ID: BLANK

Batch: M950922113701

Reported on: 10/03/95 11 1 1 Analyzed on: 09/22/95 13:14

Analyst: GT

# METHOD 624/8240 M265B01

Compound	Result	Detection Limit	
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	96	88-110	% Recovery
Toluene-d8	101		% Recovery
Bromofluorobenzene	93		% Recovery

Samples in Batch 9509863-01 9509863-02 Notes

ND - Not detected.

Data File: /chem/m.i/m950922.b/m265b01.d

Report Date: 26-Sep-1995 11:23

# SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950922.b/m265b01.d

Lab Smp Id:

Inj Date : 22-SEP-1995 13:14

Operator : GT

Inst ID: m.i

Smp Info : BLANK-8240W/1X Misc Info : M265W1/M265B01/M265CC1

Comment

Method : /chem/m.i/m950922.b/mvoclpw.m Meth Date : 24-Sep-1995 13:46 george ( Cal Date : 22-SEP-1995 11:00

Quant Type: ISTD

Cal File: m265cc1.d

Als bottle: 6
Dil Factor: 1.000
Integrator: HP RTE Target Version: 3.10

Compound Sublist: all.sub

		QUANT SIG				CONCENTRA	ATIONS
	ompounds					ON-COLUMN	FINAL
<b>I</b> .	-	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
₩,	16 Danson 13	====	==	*****		#233a32	-3,-,
_	16 Bromochloromethane	128.00	4.227	4.200 (1.000)	61458	250	
<u> </u>	18 1,2-Dichloroethane-d4	102.00	5.039	5.011 (1.192)			
	23 1,4-Difluorobenzene	114.00	6.072	•	25242	240	48
	31 Toluene-d8			6.060 (1.000)	376571	250	
•	37 Chlorobenzene-d5	98.00	8.757	8.746 (0.777)	501172	250	51
_>~		117.00	11.266	11.256 (1.000)	381730	250	
	46 Bromofluorobenzene	95.00	13.495	13.471 (1.198)	262189	230	46

Data File: /chem/m.i/m950922.b/m265b01.d

Report Date: 26-Sep-1995 11:23

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i

Lab File ID: m265b01.d

Lab Smp Id:

Analysis Type: VOA Quant Type: ISTD

Operator: GT

Method File: /chem/m.i/m950922.b/mvoclpw.m

Misc Info: M265W1/M265B01/M265CC1

Calibration Date: 09/22/95 Calibration Time: 1100

Level: LOW

Sample Type: WATER

COMPOUND  16 Bromochloromethane 23 1,4-Difluorobenzene 37 Chlorobenzene-d5	STANDARD ======= 60744 379288 404141	LOWER ======= 30372	758576	SAMPLE ======== 61458 376571 381730	-0.72
--	--	---------------------------	--------	---	-------

COMPOUND  16 Bromochloromethane 23 1,4-Difluorobenzene 37 Chlorobenzene-d5	STANDARD ======= 4.20 6.06 11.26	5.56	UPPER ===================================	SAMPLE ======== 4.23 6.07 11.27	% DIFF ====== 0.66 0.20 0.09
--	--	------	--	---	--

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Page 4

Instrument: m.i



#### **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

page

3

# SPL Blank QC Report

Matrix: Aqueous Sample ID: BLANK Batch: M950924113701 Reported on: 10/03/95 11:31 Analyzed on: 09/24/95 19:19

Analyst: GT

METHOD 624/8240 M267B01

Compound	Result	Detection Limit	
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
Acetone	ND	100	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND		ug/L
Carbon Disulfide	ND		ug/L
1,1-Dichloroethane	ND	11	ug/L
1,2-Dichloroethene (total)	ND	11	ug/L
Vinyl Acetate	ND		ug/L
2-Butanone	ND		ug/L
Chloroform	ND	11	ug/L
1,1,1-Trichloroethane	ND	41	ug/L
1,2-Dichloroethane	ND	11 .	ug/L
Benzene	ND		ug/L
Carbon Tetrachloride	∥ ND		ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	11	ug/L
Bromodichloromethane	ND	II	11 11
2-Chloroethylvinylether	ND	II	11 - 1 11
4-Methyl-2-Pentanone	ND		11 - 1
cis-1,3-Dichloropropene	ND		
trans-1,3-Dichloropropene	ND	H	ug/L
Toluene	ND	11	11
1,1,2-Trichloroethane	ND	11	11 - 11
2-Hexanone	ND	KI .	11 - 1
Dibromochloromethane	NE	ii.	
Tetrachloroethene	NE	16	
Chlorobenzene	NE	<b>81</b>	
Xylene (Total)	NE	- 11	
Ethylbenzene	NE NE	14	11 - 11
Bromoform	NI	5	$\  ug/L\ $

Notes

ND - Not detected.

QC Officer



# **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

page

# SPL Blank QC Report

Matrix: Aqueous
Sample ID: BLANK

Batch: M950924113701

Reported on: 10/03/95 11:31 Analyzed on: 09/24/95 19:19

Analyst: GT

METHOD 624/8240 M267B01

Compound	Result	Detection Limit	1
Styrene	ND	· I	ug/L
1,1,2,2-Tetrachloroethane	ND		ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	101 97 98	88-110	<pre>% Recovery % Recovery % Recovery</pre>

**Samples in Batch** 9509863-01 9509863-02 9509863-03 9509863-04 9509863-05

# <u>Notes</u>

ND - Not detected.

QC Officer

Page 1

Data File: /chem/m.i/m950924.b/m267b01.d

Report Date: 27-Sep-1995 12:45

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950924.b/m267b01.d

Lab Smp Id:

Inj Date : 24-SEP-1995 19:19

Operator : GT Inst ID: m.i

Smp Info : BLANK-8240W/1X

Misc Info : M267W1/M267B01/M267CC1

Comment

Method : /chem/m.i/m950924.b/mvoclpw.m

Meth Date: 24-Sep-1995 18:00 george Quant Type: ISTD

Cal Date : 24-SEP-1995 17:22 Cal File: m267cc1.d

Als bottle: 6

Dil Factor: 1.000
Integrator: HP RTE

Integrator: HP RTE Compound Sublist: all.sub

Target Version: 3.10

				CONCENTRA	TIONS			
		QUANT SIG					ON-COLUMN	FINAL
Comp	ounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ug/L)
====		====	==	=====	=====	B======	======	*****
* 1	5 Bromochloromethane	128.00	4.257	4.244	(1.000)	61210	250	
\$ 1	3 1,2-Dichloroethane-d4	102.00	5.068	5.056	(1.191)	25818	250	51
* 2	3 1,4-Difluorobenzene	114.00	6.101	6.089	(1.000)	398445	250	
\$ 3	l Toluene-d8	98.00	8.802	8.776	(0.778)	546285	240	48
* 3	7 Chlorobenzene-d5	117.00	11.311	11.286	(1.000)	418390	250	
\$ 4	6 Bromofluorobenzene	95.00	13.524	13.516	(1.196)	301210	240	49

Page 2

Data File: /chem/m.i/m950924.b/m267b01.d

Report Date: 27-Sep-1995 12:45

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i Lab File ID: m267b01.d Calibration Date: 09/24/95

Calibration Time: 1722

Lab Smp Id:

Analysis Type: VOA

Level: LOW Sample Type: WATER

Quant Type: ISTD

Operator: GT Method File: /chem/m.i/m950924.b/mvoclpw.m

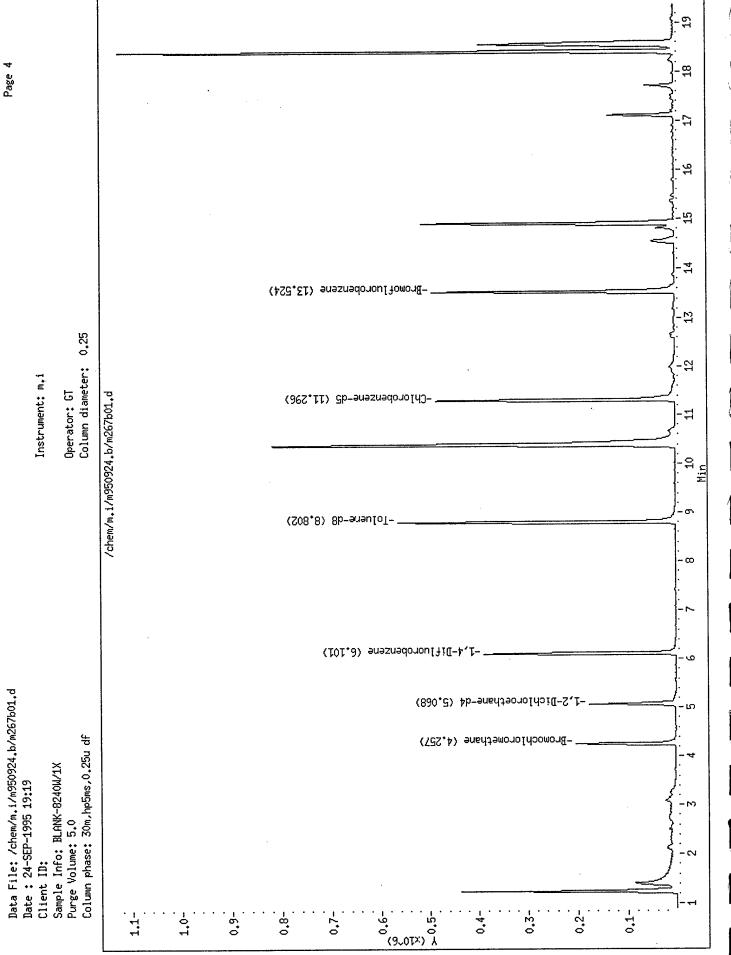
Misc Info: M267W1/M267B01/M267CC1

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane	64827	32414	129654	61210	-5.58
23 1,4-Difluorobenzene	417600	208800	835200	398445	-4.59
37 Chlorobenzene-d5	429645	214822	859290	418390	-2.62

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======		=======	======
16 Bromochloromethane	4.24	3.74	4.74	4.26	0.31
23 1,4-Difluorobenzene	6.09	5.59	6.59	6.10	0.20
37 Chlorobenzene-d5	11.29	10.79	11.79	11.31	0.22
			'		

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: /chem/m.i/m950922.b/m265bf1.d

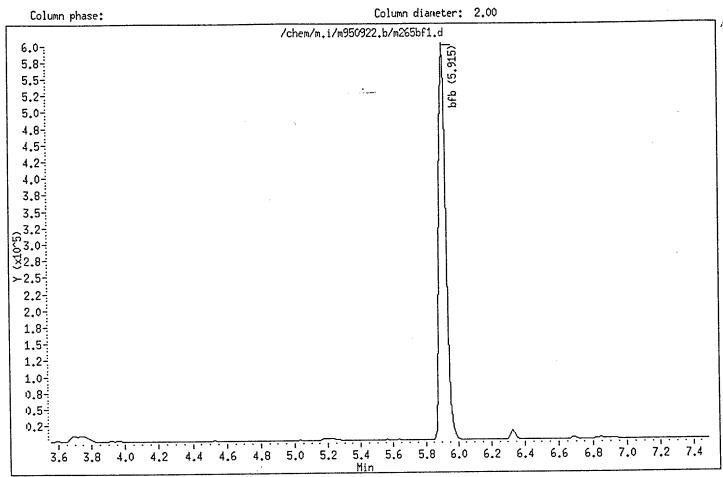
Date: 22-SEP-95 09:59

Client ID:

Sample Info: 50 NG

Instrument: m.i

Operator: GLT



Data File: /chem/m.i/m950922.b/m265bf1.d

Date: 22-SEP-95 09:59

Client ID:

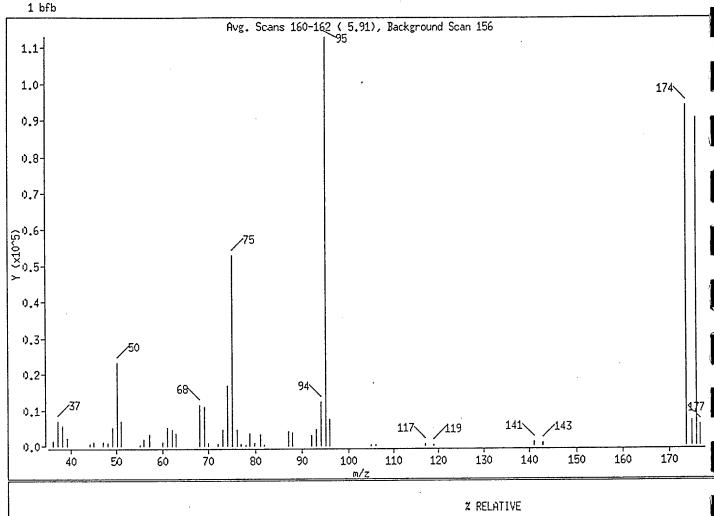
Instrument: m.i

Sample Info: 50 NG

Operator: GLT

Column phase:

Column diameter: 2.00



m/e	ION ABUNDANCE CRITERIA		ABUNDANCE	
+	+			 I
1 95	Base Peak, 100% relative abundance	1	100,00	1
1 50	15.00 - 40.00% of mass 95	1	20.59	1
1 75	1 30.00 - 60.00% of mass 95	1	46.84	
1 96	5.00 - 9.00% of mass 95	ı	6.64	1
1 173	Less than 2.00% of mass 174	ı	0.00 ( 0.00)	
	50.00 - 120.00% of mass 95	1	83.26	
1 175	5.00 - 9.00% of mass 174	ı	6.19 ( 7.43)	
	1 95.00 - 101.00% of mass 174	1	80.23 ( 96.36)	
1 177	5.00 - 9.00% of mass 176	I	5.27 ( 6.56)	

Data File: /chem/m.i/m950922.b/m265bf1.d

Date : 22-SEP-95 09:59

Client ID:

Sample Info: 50 NG

Instrument: m.i

Operator: GLT

Column phase:

Column diameter: 2.00

.Data File: m265bf1.d

Spectrum : Avg. Scans 160-162 ( 5.91), Background Scan 156

Largest m/z: 95.05 Number of peaks: 49

_	m/z	Υ .	m/z	Y		m/z	Y		m/z	Y .
1	36 <b>.</b> 05	1466 I	57.10	3110	+- 	77.05	460	I 105	.10	209 1
1	37.10	6837 1	60.05	1113	١	78.05	168	1 106	.00	167 I
i	38.10	5652 1	61.05	5065	l	78.90	3365	1116	.95	418 I
i	39.10	2247 1	62.00	4657	l	79.90	816	I 118	.95	169
1	44.05	445 1	63.00	3352	1	81.00	3136	I 140	.90	1010
+-		+-			+-			+		+
1	45.05	1142	68.05	11423	1	82.00	392	1 142	.85	932 I
I	47.10	1107 l	69.05	10965	1	87,05	3924	I 173	.90	94096 1
1	48.00	776 1	70.05	761	l	88.00	<b>3</b> 737	I 175	.00	6992
1	49.10	5037 I	72.00	592	i	92.05	2947	1 176	.00	90680 1
I	50.05	23264 1	73.10	4601	I	93,05	4448	176	.95	5951 I
+-		+			+-	~~~~~	40104	+		+
Į	51.05	6938	74.10	16944		94.05	12420			1
١	55.10	208 1	75.05	52944	I	95.05	113024	I		i
ı	56.00	1743 I	76.05	4529	1	96.00	7510	1		1
+-					+-			+		+

Data File: /chem/m.i/m950924.b/m267bf1.d

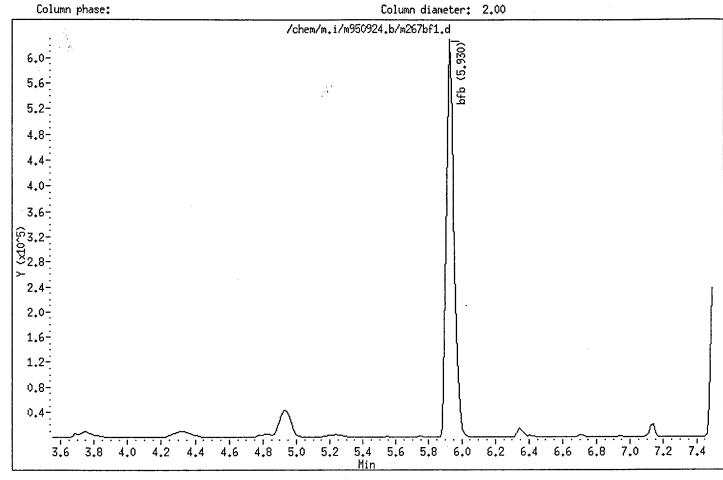
Date: 24-SEP-95 15:54

Client ID:

Instrument: m.i

Sample Info: 50 NG

Operator: GLT



Page 1

Data File: /chem/m.i/m950924.b/m267bf1.d

Date: 24-SEP-95 15:54

Client ID:

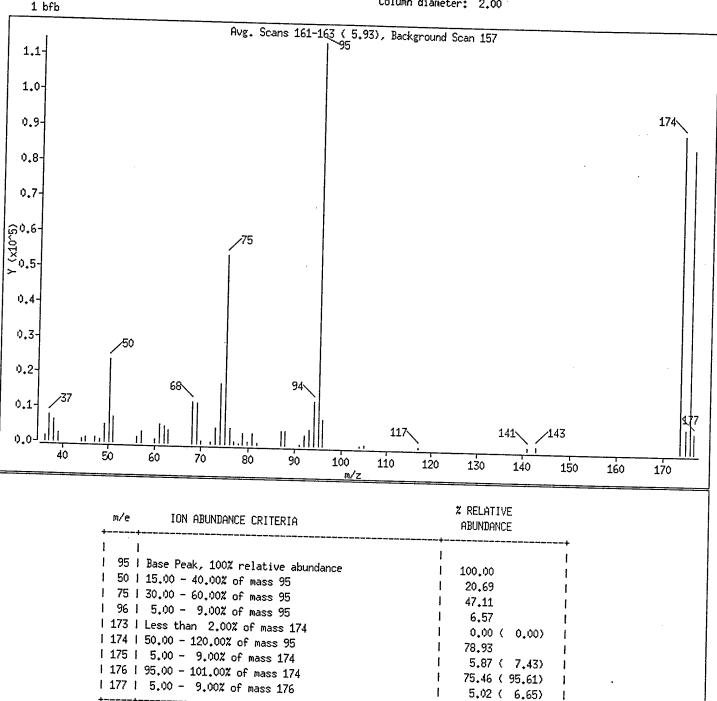
Sample Info: 50 NG

Instrument: m.i

Operator: GLT

Column diameter: 2.00





Data File: /chem/m.i/m950924.b/m267bf1.d

Date : 24-SEP-95 15:54

Client ID:

Sample Info: 50 NG

Instrument: m.i

Operator: GLT

Column phase:

Column diameter: 2.00

Data File: m267bf1.d

Spectrum : Avg. Scans 161-163 ( 5.93), Background Scan 157

Largest m/z: 95.05 Number of peaks: 48

	m/z	Y	m/z	Y	L	m/z	Y		m/z	Υ	-+
1	36.05	1641 l	60.05	1067		77,95	218	l	103.95	175	1
1	37.00	7530 I	61.05	5281	1	78,90	3249	l	105.00	406	
ı	38.00	6137 l	62.00	4904	l	79,90	807	l	116.95	218	l
1	39.00	2355 1	63.00	3666	I	80.90	3195	l	140.90	850	l
l	44.05	720 1	68.05	11877	l	82,00			142,85	1001	1
+-		+-			+			•			-+
-	45.05	1313 I	69,05	11666	1	87,05		-	173.90	90304	-
1	47,10	1237 I	70.05	. 823	İ	88.00	4137	l	175.00	6712	
-1	48.00	856 I	72.00	630	ı	91.00	200	1	176.00	86336	ı
i	49.10	5268 I	73.00	4484	1	91,95	2887	l	176.95	5744	1
I	50.05	23672 I	74.00	17416	!	93,05	4517	1			!
+- 1	51.05	7238 I	75.05	53896	+ 	94.05	12706	1			l
i	56.10	1691	76.05	4562	1	95.05	114416	i			l
1	57.10	3130 I	77.05	714	۱	96.00	7513	1			! -+
+-		+-			+-						•

Report Date : 22-Aug-1995 14:51

#### SPL Labs

# INITIAL CALIBRATION DATA

Start Cal Date : 17-AUG-1995 10:57 End Cal Date : 17-AUG-1995 13:29 Quant Method : ISTD Origin : Included Target Version : 3.10

Integrator : HP RTE Method file

: /chem/m.i/m950817.b/mvoclpw.m Cal Date

: 21-Aug-1995 11:14 jimmy

Curve Type : Average

Calibration File Names:

Level 1: /chem/m.i/m950817.b/m229ic1.d Level 2: /chem/m.i/m950817.b/m229ic2.d Level 3: /chem/m.i/m950817.b/m229ic1.d Level 4: /chem/m.i/m950817.b/m229ic4.d Level 5: /chem/m.i/m950817.b/m229ic5.d

Compound	50	100	250	500	1000	l	
compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	* RSD
1 Chloromethane	* *****			*****			
	2.47973		2.32411	1.97929	1.73939	2.07649	15.11
2 Vinyl Chloride	1.57633	1.46436	1.83288	1.64087	1.53335	1.60956	8.72
3 Bromomethane	1.34392	1.08778	1.33011	1.21006	1.05769	1.20591	11.00
4 Chloroethane	0.84749	0.70189	0.92356	0.88946	0.74958	0.82240	11.40
5 Trichlorofluoromethane	1.89907	1.91006	2.18749	1.96918	1.81192	1.95554	-
6 Acetone	0.81673	0.43755	0.27387	0.20832	0.20270	0.38783	66.48
7 1.1-Dichloroethene	1.23943	1.41040	1.42330	1.44099	1.32547	1.36792	6.17
8 Methylene Chloride	2.00881	1.99967	1.97466	1.91655	1.90523	1.96099	
12 1,2-Dichloroethene (total)	2.01798	2.09691	2.02750	2.00487	2.09691	2.04884	
9 Carbon Disulfide	5.14136	4.84319	5.48586	5.17496	4.88481	5.10604	
10 trans-1,2-Dichloroethene	1.85923	1.97303	1.91751	1.86759	2.00090	1.92365	
11 1,1-Dichloroethane	3.98144	3.88481	3.62729	3.65858	3.75445		
13 Vinyl Acetate	4.65821	4.78099	4.62089	4.51516	4.41572	4.59819	
14 2-Butanone	1.70528	1.25062	1.00266	0.72359	0.74610		
15 cis-1,2-Dichloroethene	2.17673	2.22080	2.13749	2.14216	2.19292		
17 Chloroform	4.45499	4.51290	4.37402	4.32080	•		
19 1,1,1-Trichloroethane	0.58949	0.52979	0.54593	0.58511	•		
20 1,2-Dichloroethane	3.66027	3.59075	3.67892	3.68706			
21 Benzene	1.93395	1.65901	-	•			
22 Carbon Tetrachloride	0.40513	0.38334	0.38269	0.43732	,	,	
24 1,2-Dichloropropane	0.32997	0.30309	0.30236	0.33570	•		
25 Trichloroethene	0.33193		0.30764	0.33797	0.34727	1	
26 Bromodichloromethane	0.49492	0.48927	0.50317	•	•	•	
27 2-Chloroethylvinylether	0.16990	•	•	0.21537	0.21324		
28 4-Methyl-2-Pentanone	0.29551	0.29188	0.30653	0.335961	•	0.19023	
29 cis-1,3-Dichloropropene	0.55099	•	0.50823	0.56895	0.60757	0.54838	
30 trans-1,3-Dichloropropene	0.503851		0.489991	0.56055	0.586801	•	
-	1	1	3	1.20023	J.3008U	0.52731	8.27

# SPL Labs

# INITIAL CALIBRATION DATA

Start Cal Date : 17-AUG-1995 10:57 End Cal Date : 17-AUG-1995 13:29

Quant Method : ISTD
Origin : Included
Target Version : 3.10
Integrator : HP RTE

Method file : /chem/m.i/m950817.b/mvoclpw.m

Cal Date : 21-Aug-1995 11:14 jimmy

Curve Type : Average

	1 50	100	250	500	1000	ı	· /·· ·-··
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	* RSD
医多种性 医克里氏 医克里氏 医克里氏 医克里氏 医克里氏 医克里氏 医克里氏 医多种							
32 Toluene	1.03748	0.93814	0.92851	0.97450	1.03141	0.98201	5.182
33 1,1,2-Trichloroethane	0.22765	0.24320	0.23034	0.26180	0.27767	0.24813	8.596
34 2-Hexanone	0.20568	0.16571	0.26715	0.17786	0.22517	0.20831	19.344
35 Dibromochloromethane	0.28514	0.27940	0.29907	0.34321	0.36504	0.31437	12.019
36 Tetrachloroethene	0.36819	0.32793	0.31753	0.34275	0.35815	0.34291	6.082
38 Chlorobenzene	1.18219	1.00315	0.97983	0.97558	1.01686	1.03152	8.329
M 39 Xylene (Total)	0.65994	0.59542	0.60363	0.63773	0.68634	0.63661	5.98
40 Ethylbenzene	0.52995	0.47483	0.46693	0.50189	0.53112	0.50095	5.98
41 m,p-Xylene(s)	0.67748	0.60177	0.60084	0.63966	0.68734	0.64142	6.34
42 Bromoform	0.18801	0.17814	0.21836	0.24533	0.26871	0.21971	17.31
43 Styrene	1.35758	1.12089	1.06914	1.11429	1.19035	1.17045	9.67
44 o-Xylene	0.62485	0.58271	0.60923	0.63387	0.68435	0.62700	5.97
45 1,1,2,2-Tetrachloroethane	0.36592	0.36350	0.38979	0.41221	0.43633	0.39355	7.89
		~~~~~~			******		
\$ 18 1,2-Dichloroethane-d4	0.42556	0.41425	0.44879	0.43103	0.44478	0.43288	3.26
\$ 31 Toluene-d8	1.43214	1.41277	1.42688	1.41669	1.43055	1.42381	0.60
\$ 46 Bromofluorobenzene	0.66202	0.63551	0.65405	0.67700	0.66622	0.65896	2.35
•	i	1	1	1	! <b>!</b>	1	

Data File: /chem/m.i/m950817.b/m229ic1.d

Report Date: 17-Aug-1995 14:41

# SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950817.b/m229ic1.d

Lab Smp Id:

Inj Date : 17-AUG-1995 12:05

Inst ID: m.i Operator : GT

Smp Info : VSTD010

Misc Info : M229W1/M229B01/M229CC1

Comment

Method : /chem/m.i/m950817.b/mvoclpw.m Meth Date : 17-Aug-1995 14:41 jimmy (Cal Date : 17-AUG-1995 12:05 Quant Type: ISTD

Cal File: m229ic1.d

Calibration Sample, Level: 1 Als bottle: 3

Dil Factor: 1.000 Compound Sublist: normal.sub Integrator: HP RTE

Target Version: 3.10

					NUOMA	TS
	QUANT SIG				CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	#===	==	*****	****	*****	222322
1 Chloromethane	50.00	1.940	1.940 (0.351)	14191	50	60
2 Vinyl Chloride	62.00	2.043	2.043 (0.370)	9021	50	49
3 Bromomethane	94.00	2.309	2.309 (0.418)	7691	50	56
4 Chloroethane	64.00	2.383	2.383 (0.431)	4850	50	52
5 Trichlorofluoromethane	100.90	2.752	2.752 (0.498)	10868	50	48
6 Acetone	58.00	2.840	2.840 (0.514)	4674	50	110
7 1,1-Dichloroethene	96.00	3.224	3.224 (0.583)	7093	50	45
8 Methylene Chloride	84.00	3.475	3.475 (0.629)	11496	50	51
M 12 1,2-Dichloroethene (total)	96.00			23097	100	98
9 Carbon Disulfide	76.00	3.593	3.593 (0.650)	29423	50	50
10 trans-1,2-Dichloroethene	96.00	4.094	4.094 (0.741)	10640	50	48
11 1,1-Dichloroethane	63.00	4.449	4.449 (0.805)	22785	50	53
13 Vinyl Acetate	43.00	4.537	4.537 (0.821)	26658	50	51
14 2-Butanone	43.00	4.921	4.921 (0.890)	9759	50	78
15 cis-1,2-Dichloroethene	96.00	5.245	5.245 (0.949)	12457	50	50
17 Chloroform	83.00	5.540	5.540 (1.003)	25495	50	50
19 1,1,1-Trichloroethane	97.00	6.367	6.367 (0.864)	19198	50	52
20 1,2-Dichloroethane	62.00	6.470	6.470 (1.171)	20947	50	50
21 Benzene	78.00	6.869	6.869 (0.932)	62983	50	62
22 Carbon Tetrachloride	117.00	6.883	6.883 (0.934)	13194	50	50
24 1,2-Dichloropropane	63.00	7.975	7.975 (1.082)	10746	50	51
25 Trichloroethene	130.00	8.005	8.005 (1.086)	10810	50	51
26 Bromodichloromethane	83.00	8.241	8.241 (1.118)	16118	50	47
27 2-Chloroethylvinylether	63.00	8.949	8.949 (1.214)	5533	50	45
28 4-Methyl-2-Pentanone	43.00	9.215	9.215 (1.250)	9624	50	47
29 cis-1,3-Dichloropropene	75.00	9.259	9.259 (1.256)	17944	50	50
30 trans-1,3-Dichloropropene	75.00	10.012	10.012 (1.358)	16409	50	48
32 Toluene	92.00	10.100	10.100 (0.815)	29322	50	53
33 1,1,2-Trichloroethane	83.00	10.218	10.218 (1.386)	7414	50	46

Data File: /chem/m.i/m950817.b/m229ic1.d Report Date: 17-Aug-1995 14:41

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
Compo	unds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
_	**************************************	***	==	*****	*****	*****	*****
34	2-Hexanone	43.00	10.661	10.661 (0.861)	5813	50	49
35	Dibromochloromethane	129.00	10.986	10.986 (1.491)	9286	50	45
36	Tetrachloroethene	164.00	11.399	11.399 (0.920)	10406	50	54
38	Chlorobenzene	112.00	12.447	12.447 (1.005)	33412	50	57
м 39	Xylene (Total)	106.00			55955	150	160
4.0	Ethylbenzene	106.00	12.830	12.830 (1.036)	14978	50	53
41	m,p-Xylene(s)	106.00	13.037	13.037 (1.052)	38295	100	100
42	Bromoform	173.00	13.583	13.583 (1.843)	6123	50	43
. 43	Styrene	104.00	13.627	13.627 (1.100)	38369	50	58
44	o-Xylene	106.00	13.701	13.701 (1.106)	17660	50	50
45	1,1,2,2-Tetrachloroethane	83.00	14.159	14.159 (1.143)	10342	50	46.
* 16	5 Bromochloromethane	128.00	5.526	5.526 (1.000)	28614	250	
* 23	3 1,4-Difluorobenzene	114.00	7.370	7.370 (1.000)	162835	250	
* 37	Chlorobenzene-d5	117.00	12.388	12.388 (1.000)	141314	250	
s 18	3 1,2-Dichloroethane-d4	102.00	6.352	6.352 (1.150)	12177	250	240
•	Toluene-d8	98.00	9.982	9.982 (0.806)	202382	250	250
\$ 46	5 Bromofluorobenzene	95.00	14.513	14.513 (1.172)	93552	250	250

Data File: /chem/m.i/m950817.b/m229ic1.d

Report Date: 17-Aug-1995 14:38

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i Lab File ID: m229ic1.d

Calibration Date: 08/17/95

Calibration Time: 1057

Lab Smp Id: Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

Operator: GT

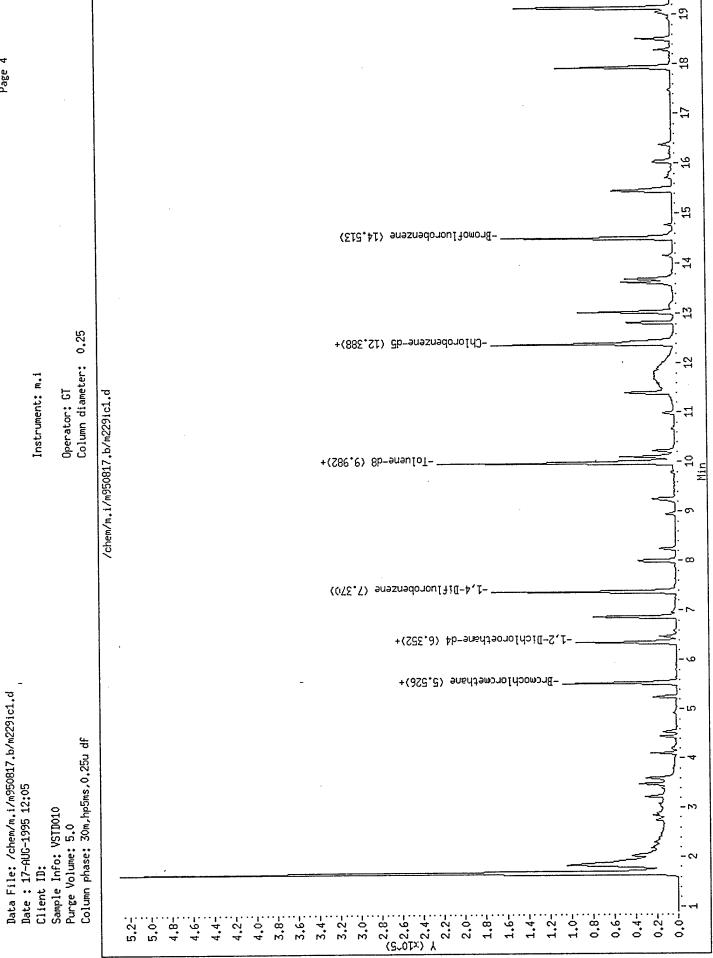
Method File: /chem/m.i/m950817.b/mvoclpw.m

Misc Info: M229W1/M229B01/M229CC1

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
16 Bromochloromethane 23 1,4-Difluorobenzene 37 Chlorobenzene-d5	25143 163665 141896	12572 81832 70948	327330	28614 162835 141314	13.81 -0.51 -0.41

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane 23 1,4-Difluorobenzene 37 Chlorobenzene-d5	5.53 7.37 12.39	5.03 6.87 11.89	6.03 7.87 12.89	5.53 7.37 12.39	-0.01 -0.01 -0.01

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area. RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: /chem/m.i/m950817.b/m229ic2.d

Report Date: 17-Aug-1995 14:41

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950817.b/m229ic2.d

Lab Smp Id:

Inj Date : 17-AUG-1995 12:33

Operator : GT Inst ID: m.i

Smp Info : VSTD020

Misc Info : M229W1/M229B01/M229CC1

Comment

Method

: /chem/m.i/m950817.b/mvoclpw.m Meth Date : 17-Aug-1995 14:41 jimmy Quant Type: ISTD

Cal Date : 17-AUG-1995 12:33 Cal File: m229ic2.d

Als bottle: 4 Calibration Sample, Level: 2

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

		•					I	MOUN	ITS	
		QUANT SIG					CAL-	MT	ON-	COL
C	ompounds	MASS	RT	EXP RT R	EL RT	RESPONSE	( r	ıg)	(	ng)
=	*************	****	==		~~~~		====	-==	===	
	1 Chloromethane	50.00	1.940	1.940 (	0.350)	19405	1	.00		90
	2 Vinyl Chloride	62.00	2.043	2.043 (	0.369)	15278	1	100		91
	3 Bromomethane	94.00	2.309	2.309 (	0.417)	11349	1	100		90
	4 Chloroethane	64.00	2.398	2.398 (	0.433)	7323	1	100		85
	5 Trichlorofluoromethane	100.90	2.752	2.752 (	0.497)	19928	1	100		98
	6 Acetone	58.00	2.840	2.840 (	0.513)	4565	. 1	100		120
	7 1,1-Dichloroethene	96.00	3.224	3.224 (	0.582)	14715	3	100		100
	8 Methylene Chloride	84.00	3.490	3.490 (	0.630)	20863	1	100		100
М	12 1,2-Dichloroethene (total)	96.00				43755	2	200		200
	9 Carbon Disulfide	76.00	3.593	3.593 (	0.648)	50530	1	100		95
	10 trans-1,2-Dichloroethene	96.00	4.109	4.109 (	0.742)	20585	1	100		100
	11 1,1-Dichloroethane	63.00	4.449	4.449 (	0.803)	40531	1	100		100
	13 Vinyl Acetate	43.00	4.537	4.537 (	0.819)	49881	:	100		100
	14 2-Butanone	43.00	4.936	4.936 (	0.891)	13048	:	100		120
	15 cis-1,2-Dichloroethene	96.00	5.260	5.260 (	0.949)	23170	:	100		100
	17 Chloroform	83.00	5.541	5.541 (	1.000}	47084	:	100		100
	19 1,1,1-Trichloroethane	97.00	6.367	6.367 (	0.864)	34783	:	100		94
	20 1,2-Dichloroethane	62.00	6.485	6.485 (	1.170)	37463	:	100		98
	21 Benzene	. 78.00	6.869	6.869 (	0.932)	108922	:	100		110
	22 Carbon Tetrachloride	117.00	6.884	6.884 (	0.934)	25168	. :	100		94
	24 1,2-Dichloropropane	63.00	7.990	7.990 (	1.084)	19899	:	100		94
	25 Trichloroethene	130.00	8.020	8.020 (	1.088)	20584	;	100		96
	26 Bromodichloromethane	83.00	8.256	8.256 (	1.120)	32123	;	100		93
	27 2-Chloroethylvinylether	63.00	8.950	8.950 (	1.214)	11284		100		90
	28 4-Methyl-2-Pentanone	43.00	9.215	9.215 (	1.250)	19163		100		92
	29 cis-1,3-Dichloropropene	75.00	9.259	9.259 (	1.256)	33233		100		92
	30 trans-1,3-Dichloropropene	75.00	10.012	10.012 (	(1.358)	32523		100		94
	32 Toluene	92.00	10.115	10.115 (	(0.817)	54072		100		96
	33 1,1,2-Trichloroethane	83.00	10.219	10.219 (	(1.386)	15967	•	100		98

Data File: /chem/m.i/m950817.b/m229ic2.d Report Date: 17-Aug-1995 14:41

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
Cc	mpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
==	*****************	====	==	*****	**=====	******	*****
	34 2-Hexanone	43.00	10.676	10.676 (0.862)	9551	100	80
	35 Dibromochloromethane	129.00	10.986	10.986 (1.491)	18344	100	89
	36 Tetrachloroethene	164.00	11.399	11.399 (0.920)	18901	100	96
	38 Chlorobenzene	112.00	12.447	12.447 (1.005)	57819	100	97
М	39 Xylene (Total)	106.00			102955	300	280
	40 Ethylbenzene	106.00	12.831	12.831 (1.036)	27368	100	95
	41 m,p-Xylene(s)	106.00	13.038	13.038 (1.052)	69369	200	190
	42 Bromoform	173.00	13.584	13.584 (1.843)	11696	100	81
	43 Styrene	104.00	13.628	13.628 (1.100)	64605	100	96
	44 o-Xylene	106.00	13.702	13.702 (1.106)	33586	100	93
	45 1,1,2,2-Tetrachloroethane	83.00	14.159	14.159 (1.143)	20951	100	92
*	16 Bromochloromethane	128.00	5.541	5.541 (1.000)	26083	250	
*	23 1,4-Difluorobenzene	114.00	7.371	7.371 (1.000)	164137	250	
*	37 Chlorobenzene-d5	117.00	12.388	12.388 (1.000)	144093	250	
\$	18 1,2-Dichloroethane-d4	102.00	6.352	6.352 (1.146)	10805	250	240
\$	31 Toluene-d8	98.00	9.982	9.982 (0.806)	203570	250	250
\$	46 Bromofluorobenzene	95.00	14.513	14.513 (1.172)	91573	250	240

Page 3

Data File: /chem/m.i/m950817.b/m229ic2.d

Report Date: 17-Aug-1995 14:38

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i
Lab File ID: m229ic2.d

Lab Smp Id:

Analysis Type: VOA Quant Type: ISTD

Operator: GT

Method File: /chem/m.i/m950817.b/mvoclpw.m

Misc Info: M229W1/M229B01/M229CC1

Calibration Date: 08/17/95 Calibration Time: 1057

Level: LOW

Sample Type: WATER

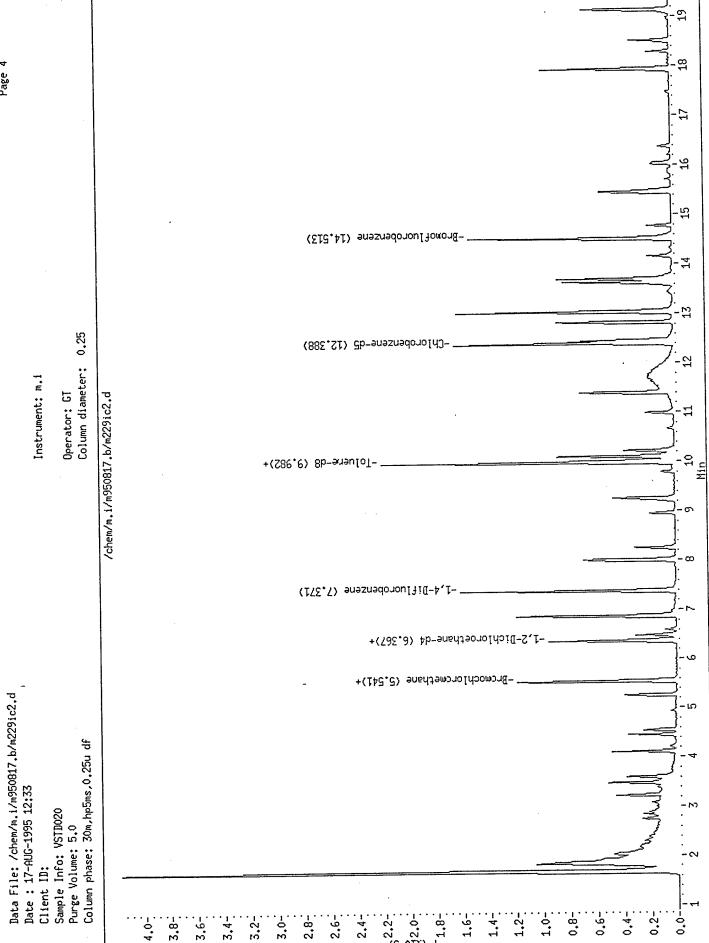
		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane	25143	12572	50286	26083	3.74
23 1,4-Difluorobenzene	163665	81832	327330	164137	0.29
37 Chlorobenzene-d5	141896	70948	283792	144093	1.55
	· · · · · · · · · · · · · · · · · · ·				

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
16 Bromochloromethane 23 1,4-Difluorobenzene 37 Chlorobenzene-d5	5.53 7.37 12.39	5.03 6.87	6.03 7.87 12.89	5.54 7.37 12.39	0.26 -0.01 -0.01

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: /chem/m.i/m950817.b/m229ccl.d

Report Date: 22-Aug-1995 14:48

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950817.b/m229ccl.d

Lab Smp Id: Inj Date : 17-AUG-1995 10:57

Operator : GT Inst ID: m.i

Smp Info : VSTD050

Misc Info : M229W1/M229B01/M229CC1

Comment

Method : /chem/m.i/m950817.b/mvoclpw.m

Meth Date : 21-Aug-1995 11:14 jimmy Quant Type: ISTD Cal Date : 17-AUG-1995 10:57

Cal File: m229ccl.d Als bottle: 2 Continuing Calibration Sample

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
Compounds	RASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
***********************		• •				
1 Chloromethane	50.00	1.940	1.940 (0.351)	58435	250	280
2 Vinyl Chloride	62.00	2.043	2.043 (0.370)	46084	250	280
3 Bromomethane	94.00	2.309	2.309 (0.418)	33443	250	280
4 Chloroethane	64.00	2.398	2.398 (0.434)	23221	250	280
5 Trichlorofluoromethane	100.90	2.752	2.752 (0.498)	55000	250	230
6 Acetone	58.00	2.840	2.840 (0.514)	11288	250	300
7 1,1-Dichloroethene	96.00	3.224	3.224 (0.583)	35786	250	260
8 Methylene Chloride	84.00	3.475	3.475 (0.629)	49649	250	250
M 12 1,2-Dichloroethene (total)	96.00			101955	500	490
9 Carbon Disulfide	76.00	3.593	3.593 (0.650)	137931	250	270
10 trans-1,2-Dichloroethene	96.00	4.110	4.110 (0.744)	48212	250	250
11 1,1-Dichloroethane	63.00	4.449	4.449 (0.805)	91201	250	240
13 Vinyl Acetate	43.00	4.538	4.538 (0.821)	115183	250	250
14 2-Butanone	43.00	4.921	4.921 (0.890)	25210	250	230
15 cis-1,2-Dichloroethene	96.00	5.246	5.246 (0.949)	53743	250	240
17 Chloroform	83.00	5.541	5.541 (1.003)	109976	250	250
19 1,1,1-Trichloroethane	97.00	6.367	6.367 (0.864)	89350	250	240
20 1,2-Dichloroethane	62.00	6.471	6.471 (1.171)	92499	250	250
21 Benzene	78.00	6.869	,6.869 (0.932)	220195	250	220
22 Carbon Tetrachloride	117.00	6.884	6.884 (0.934)	62633	250	230
24 1,2-Dichloropropane	63.00	7.976	7.976 (1.082)	49486	250	230
25 Trichloroethene	130.00	8.006	8.006 (1.086)	50350	· 250	230
25 Bromodichloromethane	83.00	8.242	8.242 (1.118)	82351	250	240
27 2-Chloroethylvinylether	63.00	8.935	8.935 (1.212)	29587	250	240
23 4-Methyl-2-Pentanone	43.00	9.216	9.216 (1.250)	50169	250	240
29 cis-1,3-Dichloropropene	75.00	9.260	9.260 (1.256)	33179	250	230
30 trans-1.3-Dichloropropene	75.00	10.013	10.013 (1.358)	80195	250	230
32 Toluene	92.00	10.102	10.102 (0.815)	131752	250	240
33 1,1,2-Trichloroethane	83.00	10.220	10.220 (1.386)	37699	250	230

Data File: /chem/m.i/m950817.b/m229cc1.d Report Date: 22-Aug-1995 14:48

						AMOUN	πs
		QUANT SIG				CAL-AMT	ON-COL
Co	pmpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	34 2-Hexanone	43.00	10.662	10.662 (0.861)	37907	250	320
	35 Dibromochloromethane	129.00	10.987	10.987 (1.491)	48948	250	240
	36 Tetrachloroethene	164.00	11.386	11.386 (0.919)	45056	250	230
	38 Chlorobenzene	112.00	12.448	12.448 (1.005)	139034	250	240
М	39 Xylene (Total)	106.00			256960	750	710
	40 Ethylbenzene	106.00	12.817	12.817 (1.035)	66256	250	230
	41 m,p-Xylene(s)	106.00	13.039	13.039 (1.052)	170513	500	470
	42 Bromoform	173.00	13.585	13.585 (1.843)	35738	250	250
	43 Styrene	104.00	13.629	13.629 (1.100)	151706	250	230
	44 o-Xylene	106.00	13.688	13.688 (1.105)	86447	250	240
	45 1,1,2,2-Tetrachloroethane	83.00	14.160	14.160 (1.143)	55309	250	250
•	16 Bromochloromethane	128.00	5.526	5.526 (1.000)	25143	250	
•	23 1,4-Difluorobenzene	114.00	7.371	7.371 (1.000)	163665	250	
•	37 Chlorobenzene-d5	117.00	12.389	12.389 (1.000)	141896	250	
\$	18 1,2-Dichloroethane-d4	102.00	6.353	6.353 (1.150)	11284	250	260
\$	31 Toluene-d8	98.00	9.983	9.983 (0.806)	202468	250	250
s	46 Bromofluorobenzene	95.00	14.515	14.515 (1.172)	92907	250	250

Data File: /chem/m.i/m950817.b/m229ccl.d

Report Date: 17-Aug-1995 14:38

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i

Lab File ID: m229cc1.d

Lab Smp Id:

Analysis Type: VOA Quant Type: ISTD

Operator: GT

Method File: /chem/m.i/m950817.b/mvoclpw.m

Misc Info: M229W1/M229B01/M229CC1

Calibration Date: 08/17/95

Calibration Time: 1057

Level: LOW

Sample Type: WATER

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane 23 1,4-Difluorobenzene	25143 163665	12572 81832	50286 327330	25143 163665	0.00
37 Chlorobenzene-d5	141896	70948	283792	141896	l
l		l			

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	========	=======	======
16 Bromochloromethane	5.53	5.03	6.03	5.53	0.00
23 1,4-Difluorobenzene	7.37	6.87	7.87	7.37	0.00
37 Chlorobenzene-d5	12.39	11.89	12.89	12.39	0.00

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



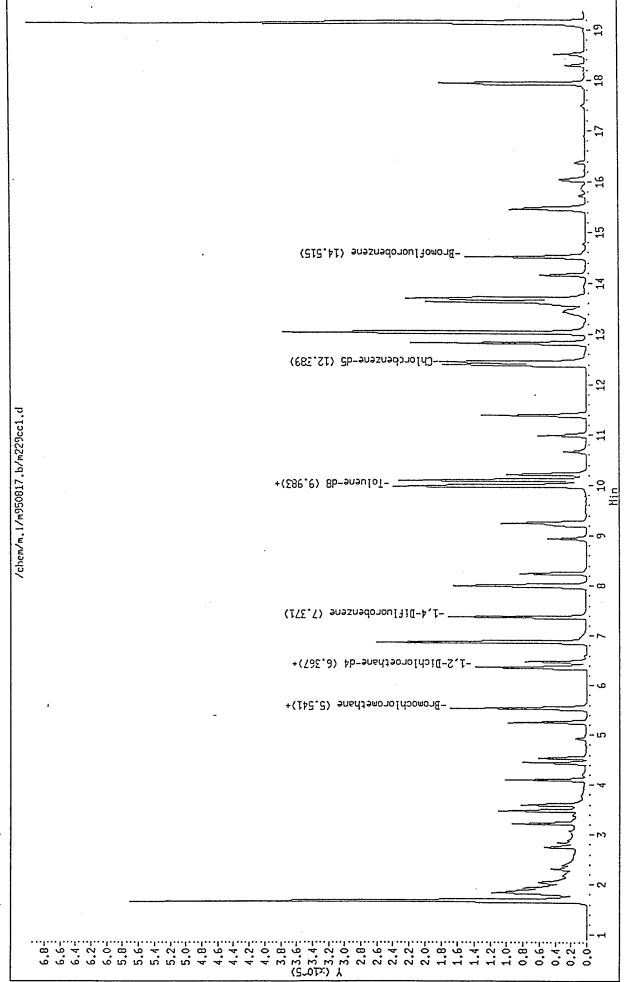
Client ID:

Sample Info: VSTDO50 Purge Volume: 5.0 Column phase: 30m,hp5ms,0.25u df



Operator: GI Column diameter:

0.25



AMOUNTS

Data File: /chem/m.i/m950817.b/m229ic4.d

Report Date: 22-Aug-1995 14:51

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950817.b/m229ic4.d

Lab Smp Id:

Inj Date : 17-AUG-1995 13:01

Operator : GT Inst ID: m.i

Smp Info : VSTD100

Misc Info : M229W1/M229B01/M229CC1

Comment

Method : /chem/m.i/m950817.b/mvoclpw.m

Meth Date : 21-Aug-1995 11:14 jimmy Cal Date : 17-AUG-1995 13:01 Quant Type: ISTD

Cal File: m229ic4.d

Als bottle: 5 Calibration Sample, Level: 4

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

						AMOUN	113
		QUANT SIG				CAL-AMT	ON-COL
Con	pounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
===	我就代表现在现在的 阿萨斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯斯	***	==		******	332322	
	1 Chloromethane	50.00	1.940	1.940 (0.350)	107040	500	480
	2 Vinyl Chloride	62.00	2.043	2.043 (0.369)	88738	500	510
	3 Bromomethane	94.00	2.309	2.309 (0.417)	65440	500	500
	4 Chloroethane	64.00	2.398	2.398 (0.433)	48102	500	540
	5 Trichlorofluoromethane	100.90	2.752	2.752 (0.497)	106493	500	500
	6 Acetone	58.00	2.841	2.841 (0.513)	11266	500	270
	7 1,1-Dichloroethene	96.00	3.224	3.224 (0.582)	77929	500	530
	8 Methylene Chloride	84.00	3.490	3.490 (0.630)	103647	500	490
М	12 1,2-Dichloroethene (total)	96.00			216847	1000	980
	9 Carbon Disulfide	76.00	3.593	3.593 (0.648)	279862	500	510
	10 trans-1,2-Dichloroethene	96.00	4.110	4.110 (0.742)	100999	500	480
	11 1,1-Dichloroethane	63.00	4.450	4.450 (0.803)	197856	500	480
	13 Vinyl Acetate	43.00	4.538	4.538 (0.819)	244180	500	490
	14 2-Butanone	43.00	4.922	4.922 (0.888)	39132	500	330
	15 cis-1,2-Dichloroethene	96.00	5.261	5.261 (0.949)	115848	500	490
	17 Chloroform	83.00	5.542	5.542 (1.000)	233669	500	490
	19 1,1,1-Trichloroethane	97.00	6.368	6.368 (0.864)	181095	500	520
	20 1,2-Dichloroethane	62.00	6.486	6.486 (1.170)	199396	500	500
	21 Benzene	78.00	6.870	6.870 (0.932)	429797	500	450
	22 Carbon Tetrachloride	117.00	6.885	6.885 (0.934)	135354	500	540
	24 1,2-Dichloropropane	63.00	7.992	7.992 (1.084)	103902	500	520
	25 Trichloroethene	130.00	8.021	8.021 (1.088)	104603	500	520
	26 Bromodichloromethane	83.00	8.243	8.243 (1.118)	172772	500	530
	27 2-Chloroethylvinylether	63.00	8.951	8.951 (1.214)	66660	500	570
	28 4-Methyl-2-Pentanone	43.00	9.217	9.217 (1.250)	103983	500	530
	29 cis-1,3-Dichloropropene	75.00	9.261	9.261 (1.256)	176094	500	520
	30 trans-1,3-Dichloropropene	75.00	10.014	10.014 (1.358)	173496	500	530
	32 Toluene	92.00	10.117	10.117 (0.817)	269103	500	500
	33 1,1,2-Trichloroethane	83.00	10.221	10.221 (1.386)	81030	500	530

Data File: /chem/m.i/m950817.b/m229ic4.d Report Date: 22-Aug-1995 14:51

						AMOUN	TS	
		QUANT SIG				CAL-AMT	ON-COL	
C	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)	
=:	· 京森城市省区市省市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市	****		医多种性溶液 医骶线性溶液	*****	****	****	
	34 2-Hexanone	43.00	10.664	10.664 (0.861)	49116	500	430	
	35 Dibromochloromethane	129.00	10.988	10.988 (1.491)	106227	500	540	
	36 Tetrachloroethene	164.00	11.402	11.402 (0.920)	94650	500	500	
	38 Chlorobenzene	112.00	12.450	12.450 (1.005)	269402	500	470	
M	39 Xylene (Total)	106.00			528320	1500	1500	
	40 Ethylbenzene	106.00	12.833	12.833 (1.036)	138596	500	500	
	41 m,p-Xylene(s)	106.00	13.040	13.040 (1.052)	353280	1000	1000	
	42 Bromoform	173.00	13.586	13.586 (1.843)	75931	500	560	
	43 Styrene	104.00	13.631	13.631 (1.100)	307706	500	480	
	44 o-Xylene	106.00	13.705	13.705 (1.106)	175040	500	500	
	45 1,1,2,2-Tetrachloroethane	83.00	14.162	14.162 (1.143)	113829	500	520	
*	16 Bromochloromethane	128.00	5.542	5.542 (1.000)	27040	250		
*	23 1,4-Difluorobenzene	114.00	7.372	7.372 (1.000)	154754	250		
*	37 Chlorobenzene-d5	117.00	12.390	12.390 (1.000)	138073	250		
\$	18 1,2-Dichloroethane-d4	102.00	6.353	6.353 (1.146)	11655	250	250	
\$	31 Toluene-d8	98.00	9.984	9.984 (0.806)	195606	250	250	
s	46 Bromofluorobenzene	95 00	14 517	14 517 (1 172)	92476	250	260	

Data File: /chem/m.i/m950817.b/m229ic4.d

Report Date: 17-Aug-1995 14:38

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i Lab File ID: m229ic4.d

Calibration Date: 08/17/95 Calibration Time: 1057

Lab Smp Id:

Level: LOW

Analysis Type: VOA Quant Type: ISTD

Sample Type: WATER

Operator: GT

Method File: /chem/m.i/m950817.b/mvoclpw.m

Misc Info: M229W1/M229B01/M229CC1

GOVENIN		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
16 Bromochloromethane	5.53	5.03	6.03	5.54	0.28
23 1,4-Difluorobenzene	7.37	6.87	7.87	7.37	0.01
37 Chlorobenzene-d5	12.39	11.89	12.89	12.39	0.01

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area. RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/m.i/m950817.b/m229ic5.d

Report Date: 22-Aug-1995 14:51

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950817.b/m229ic5.d

Lab Smp Id:

Inj Date : 17-AUG-1995 13:29

Operator : GT Inst ID: m.i

Smp Info : VSTD200

Misc Info : M229W1/M229B01/M229CC1

Comment :
Method : /chem/m.i/m950817.b/mvoclpw.m

Meth Date : 21-Aug-1995 11:14 jimmy Quant Type: ISTD

Cal Date : 17-AUG-1995 13:29 Cal File: m229ic5.d

Als bottle: 6 Calibration Sample, Level: 5

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

						MOUN	rrs
		QUANT SIG				CAL-AMT	ON-COL
C	mpounds	MASS	RT	EXP RT REI	RT RESPONSE	( ng)	( ng)
=	*************	***	==	*****		======	****
	1 Chloromethane	50.00	1.940	1.940 (0.	350) 185836	1000	840
	2 Vinyl Chloride	62.00	2.043	2.043 (0.	369) 163823	1000	950
	3 Bromomethane	94.00	2.309	2.309 (0.	417) 113004	1000	880
	4 Chloroethane	64.00	2.398	2.398 (0.	.433) 80085	1000	910
	5 Trichlorofluoromethane	100.90	2.752	2.752 (0.	497) 193585	1000	930
	6 Acetone	58.00	2.841	2.841 (0.	.513) 21656	1000	520
	7 1,1-Dichloroethene	96.00	3.225	3.225 (0.	.582) 141613	1000	970
	8 Methylene Chloride	84.00	3.491	3.491 (0.	.630) 203555	1000	970
М	12 1,2-Dichloroethene (total)	96.00			448068	2000	2000
	9 Carbon Disulfide	76.00	3.594	3.594 (0.	.648) 521893	1000	960
	10 trans-1,2-Dichloroethene	96.00	4.111	4.111 (0.	.742) 213776	1000	1000
	11 1,1-Dichloroethane	63.00	4.450	4.450 (0.	.803) 401125	1000	990
	13 Vinyl Acetate	43.00	4.539	4.539 (0.	.819) 471775	1000	960
	14 2-Butanone	43.00	4.923	4.923 (0.	.888) 79713	1000	690
	15 cis-1,2-Dichloroethene	96.00	5.262	5.262 (0.	.949) 234292	1000	1000
	17 Chloroform	83.00	5.543	5.543 (1.	.000) 481835	1000	1000
	19 1,1,1-Trichloroethane	97.00	6.369	6.369 (0.	.864) 348317	1000	990
	20 1,2-Dichloroethane	62.00	6.487	6.487 (1.	.170) 398843	1000	1000
	21 Benzene	78.00	6.871	6.871 (0	.932) 896074	1000	920
	22 Carbon Tetrachloride	117.00	6.886	6.886 (0	.934) 270228	1000	1100
	24 1,2-Dichloropropane	63.00	7.993	7.993 (1	.084) 214434	1000	1100
	25 Trichloroethene	130.00	8.023	8.023 (1	.088) 216642	1000	1000
	26 Bromodichloromethane	83.00	8.244	8.244 (1	.118) 362683	1000	1100
	27 2-Chloroethylvinylether	63.00	8.953	8.953 (1	.214) 133028	1000	1100
	28 4-Methyl-2-Pentanone	43.00	9.218	9.218 (1	.250) 218982	1000	1100
	29 cis-1,3-Dichloropropene	75.00	9.263	9.263 (1	.256) 379024	1000	1100
	30 trans-1,3-Dichloropropene	75.00	10.016	10.016 (1	.358) 366066	1000	1100
	32 Toluene	92.00	10.119	10.119 (0	.817) 566160	1000	1000
	33 1,1,2-Trichloroethane	83.00	10.223	10.223 (1	.386) 173221	1000	1100

Data File: /chem/m.i/m950817.b/m229ic5.d

Report Date: 17-Aug-1995 14:38

#### SPL Labs

### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i

Lab File ID: m229ic5.d

Lab Smp Id:

Analysis Type: VOA Quant Type: ISTD

Operator: GT

Method File: /chem/m.i/m950817.b/mvoclpw.m

Misc Info: M229W1/M229B01/M229CC1

Calibration Date: 08/17/95

Calibration Time: 1057

Level: LOW

Sample Type: WATER

1			AREA	LIMIT		
	COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
١	=======================================	=======	=======	=======	=======	======
-	16 Bromochloromethane	25143	12572	50286	26710	6.23
	23 1,4-Difluorobenzene	163665	81832	327330	155959	-4.71
	37 Chlorobenzene-d5	141896	70948	283792	137230	-3.29
					,	

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane	5.53	5.03	6.03	5.54	0.29
23 1,4-Difluorobenzene	7.37	6.87	7.87	7.37	0.03
37 Chlorobenzene-d5	12.39	11.89	12.89	12.39	0.03

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area. RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT. Data File: /chem/m.i/m950817.b/m229ic5.d Report Date: 22-Aug-1995 14:51

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
Co	mpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
==	2. 2. 3. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	****	==		*****	272722	*****
	34 2-Hexanone	43.00	10.666	10.666 (0.861)	123601	1000	1100
	35 Dibromochloromethane	129.00	10.990	10.990 (1.491)	227724	1000	1200
	36 Tetrachloroethene	164.00	11.404	11.404 (0.920)	196593	1000	1000
	38 Chlorobenzene	112.00	12.452	12.452 (1.005)	558174	1000	980
М	39 Xylene (Total)	106.00			1130240	3000	3200
	40 Ethylbenzene	106.00	12.836	12.836 (1.036)	291540	1000	1100
	41 m,p-Xylene(s)	106.00	13.042	13.042 (1.052)	754587	2000	2100
	42 Bromoform	173.00	13.589	13.589 (1.843)	167629	1000	1200
	43 Styrene	104.00	13.633	13.633 (1.100)	653406	1000	1000
	44 o-Xylene	106.00	13.707	13.707 (1.106)	375653	1000	1100
	45 1,1,2,2-Tetrachloroethane	83.00	14.165	14.165 (1.143)	239509	1000	1100
*	16 Bromochloromethane	128.00	5.543	5.543 (1.000)	26710	250	
•	23 1,4-Difluorobenzene	114.00	7.373	7.373 (1.000)	155959	250	
*	37 Chlorobenzene-d5	117.00	12.392	12.392 (1.000)	137230	. 250	
\$	18 1,2-Dichloroethane-d4	102.00	6.354	6.354 (1.146)	11880	250	260
\$	31 Toluene-d8	98.00	9.986	9.986 (0.806)	196315	250	250
Ś	46 Bromofluorobenzene	95.00	14.519	14.519 (1.172)	91426	250	250

Data File: /chem/m.i/m950922.b/m265cc1.d

Report Date: 04-Oct-1995 16:16

#### SPL Houston Labs

### CONTINUING CALIBRATION COMPOUNDS

Instrument ID: m.i
Lab File ID: m265ccl.d

nalysis Type: WATER Lab Sample ID:

<u>Quant Type: ISTD</u>

Injection Date: 22-SEP-1995 11:00

Init. Calibration Date(s): 08/17/95 08/17/95
Init. Calibration Times: 10:57 13:29
Method File: /chem/m.i/m950922.b/mvoclpw.m

,	COMPOUND	RRF	MIN     RF250   RRF	MAX %D   %D
==:	· ====================================	=======	  ======= ====	
	1 Chloromethane	2.076	2.037 0.010	1.9 40.0
	2 Vinyl Chloride	1.610		5.5 25.0
	3 Bromomethane	1.206		5.3 25.0
	4 Chloroethane	0.822		10.4 40.0
	5 Trichlorofluoromethane	1.956	2.163 0.010	10.6 40.0
	6 Acetone	0.388	0.244 0.010	37.2 100.
	7 1,1-Dichloroethene	1.368	1.522 0.100	11.3 25.0
	8 Methylene Chloride	1.961	1.924 0.010	1.9 40.
M	12 1,2-Dichloroethene (total)	2.049	2.063 0.010	0.7   100.
	9 Carbon Disulfide	5.106	5.305   0.010	3.9 40.
	10 trans-1,2-Dichloroethene	1.924	1.966   0.010	2.2 100.0
	11 1,1-Dichloroethane	3.781	3.514   0.200	7.1 25.
	13 Vinyl Acetate	4.598	4.142 0.010	9.9 100.
	14 2-Butanone	1.086	0.973 0.010	10.4   100.
	15 cis-1,2-Dichloroethene	2.174	2.161 0.010	0.6] 25.
	17 Chloroform	4.435	4.668   0.200	5.3 25.
	19 1,1,1-Trichloroethane	0.562	0.644 0.100	14.6  25.
	20 1,2-Dichloroethane	3.670	3.987   0.100	8.6  25.
	21 Benzene	1.553	1.303 0.500	16.1 25.
	22 Carbon Tetrachloride	0.408	0.526 0.100	28.8 40.
	24 1,2-Dichloropropane	0.323	0.334 0.010	3.4 25.
	25 Trichloroethene	0.328	0.342 0.300	4.4  25.
	26 Bromodichloromethane	0.525	0.632 0.200	20.3  25.
	27 2-Chloroethylvinylether	0.190	0.023 0.010	87.7 100.
	28 4-Methyl-2-Pentanone	0.316	0.340 0.010	7.6 100.
	29 cis-1,3-Dichloropropene	0.548	0.618 0.100	12.6  25.
	30 trans-1,3-Dichloropropene	0.527	0.589 0.100	11.8  25.
	32 Toluene	0.982	0.896 0.400	8.8 25.
	33 1,1,2-Trichloroethane	0.248	0.305 0.100	22.7  25.
	34 2-Hexanone	0.208	0.245 0.010	17.7 100.
	35 Dibromochloromethane	0.314	0.424[0.100]	34.9 40.
	36 Tetrachloroethene	0.343	0.359 0.200	4.8 25.
	38 Chlorobenzene	1.032	1.067[0.500]	3.4 25.
1	39 Xylene (Total)	0.637	0.692 0.300	8.7 25.
	40 Ethylbenzene	0.501	0.543 0.100	8.4 25.
	41 m,p-Xylene(s)	0.641	0.697 0.300	8.6  25.
	42 Bromoform	0.220	0.260 0.100	18.3   40.
	43 Styrene	1.170	1.176 0.300	0.5  25.
	44 o-Xylene	0.627	0.683 0.300	9.0  25.
	45 1,1,2,2-Tetrachloroethane	0.394	0.471 0.300	19.6  25.
		1		1

Data File: /chem/m.i/m950922.b/m265cc1.d

Report Date: 04-Oct-1995 16:16

### SPL Houston Labs

# CONTINUING CALIBRATION COMPOUNDS

Instrument ID: m.i Lab File ID: m265cc1.d

Injection Date: 22-SEP-1995 11:00

Analysis Type: WATER

Init. Calibration Date(s): 08/17/95 08/17/95 Init. Calibration Times: 10:57 Method File: /chem/m.i/m950922.b/mvoclpw.m

Lab Sample ID:

Quant Type: ISTD

i —		l		MIN		MAX
į.	COMPOUND	RRF	RF250	RRF	%D	%D
==					=====	=====
ļs	18 1,2-Dichloroethane-d4	0.433	0.427	0.010	1.4	40.0
\$	31 Toluene-d8	1.424	1.294	0.010	9.1	25.0
\$	46 Bromofluorobenzene	0.659	0.741	0.010	12.4	25.0
i			.	11		I

Data File: /chem/m.i/m950922.b/m265cc1.d

Report Date: 22-Sep-1995 11:45

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950922.b/m265cc1.d

Lab Smp Id:

Inj Date : 22-SEP-1995 11:00

Operator : GT

Inst ID: m.i

Smp Info : VSTD050 Misc Info : M265W1/M265B01/M265CC1

Comment

Method : /chem/m.i/m950922.b/mvoclpw.m Meth Date : 22-Sep-1995 11:41 hillery Quant Type: ISTD Cal Date : 22-SEP-1995 11:00

Cal File: m265cc1.d Als bottle: 2

Continuing Calibration Sample Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub Target Version: 3.10

						AMOUN	TS
Compoun	nde	QUANT SIG				CAL-AMT	ON-COL
•		MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	hloromethane	====	==	22221 22222			======
		50.00	1.453	1.453 (0.346)	123765	250	240
	inyl Chloride	62.00	1.497	1.497 (0.357)	92424	250	240
		94.00	1.689	1.689 (0.402)	69395	250	240
	hloroethane	64.00	1.749	1.749 (0.416)	44739	250	220
	richlorofluoromethane	100.90	2.014	2.014 (0.480)	131359	250	280
	cetone	58.00	2.088	2.088 (0.497)	14803	250	160
	,1-Dichloroethene	96.00	2.354	2.354 (0.561)	92478	250	280
	ethylene Chloride	84.00	2.546	2.546 (0.606)	116887	250	240
	,2-Dichloroethene (total)	96.00			250683	500	500
	arbon Disulfide	76.00	2.620	2.620 (0.624)	322255	250	260
	rans-1,2-Dichloroethene	96.00	2.989	2.989 (0.712)	119421	250	260
	,1-Dichloroethane	63.00	3.255	3.255 (0.775)	213474	250	230
	inyl Acetate	43.00	3.329	3.329 (0.793)	251627	250	220
	-Butanone	43.00	3.668	3.663 (0.873)	59081	250	220
	is-1,2-Dichloroethene	96.00	3.934	3.934 (0.937)	131262	250	250
	nloroform	83.00	4.214	4.214 (1.004)	283529	250	260
	1,1-Trichloroethane	97.00	5.026	5.026 (0.829)	244235	250	290
	,2-Dichloroethane	62.00	5.144	5.144 (1.225)	242169	250	270
	enzene	78.00	5.513	5.513 (0.910)	494051	250	210
	arbon Tetrachloride	117.00	5.528	5.528 (0.912)	199544	250	320
	2-Dichloropropane	63.00	6.665	6.665 (1.100)	126716	250	260
	richloroethene	130.00	6.694	6.694 (1.105)	129700	250	260
	comodichloromethane	83.00	6.931	6.931 (1.144)	239745	250	300
	Chloroethylvinylether	63.00	7.698	7.698 (1.270)	8839	250	31
	Methyl-2-Pentanone	43.00	8.008	8.008 (1.322)	129050	250	270
29 ci	.s-1,3-Dichloropropene	75.00	8.008	8.008 (1.322)	234272	250	280
30 tr	ans-1,3-Dichloropropene	75.00	8.805	8.805 (1.453)	223576	250	
	luene	92.00	8.879	8.879 (0.789)	361909	250 250	280
33 1,	1,2-Trichloroethane	83.00	9.012	9.012 (1.487)	115495	250	230

Data File: /chem/m.i/m950922.b/m265cc1.d

Report Date: 22-Sep-1995 11:46

SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i

Lab File ID: m265cc1.d

Lab Smp Id:

Analysis Type: VOA

Quant Type: ISTD

Operator: GT

Method File: /chem/m.i/m950922.b/mvoclpw.m

Misc Info: M265W1/M265B01/M265CC1

Calibration Date: 09/22/95

Calibration Time: 1100

Level: LOW

Sample Type: WATER

		AREA	LIMIT	· · · · · · · · · · · · · · · · · · ·	
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane	60744	30372	121488	60744	0.00
23 1,4-Difluorobenzene	379288	189644	758576	379288	0.00
37 Chlorobenzene-d5	404141	202070	808282	404141	0.00

		RT	LIMIT		·
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
16 Bromochloromethane	4.20	3.70	4.70	4.20	0.00
23 1,4-Difluorobenzene	6.06	5.56	6.56	6.06	0.00
37 Chlorobenzene-d5	11.26	10.76	11.76	11.26	0.00
				, ,	

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Page 1

Data File: /chem/m.i/m950922.b/m265cc1.d Report Date: 22-Sep-1995 11:45

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
Co	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
# =			# #		#======	======	*=====
	34 2-Hexanone	43.00	9.529	9.529 (0.847)	99085	250	290
	35 Dibromochloromethane	129.00	9.780	9.780 (1.614)	160855	250	340
	36 Tetrachloroethene	164.00	10.208	10.208 (0.907)	145279	250	260
	38 Chlorobenzene	112.00	11.316	11.316 (1.005)	431143	250	260
M	39 Xylene (Total)	106.00			839231	750	820
	40 Ethylbenzene	106.00	11.714	11.714 (1.041)	219447	250	270
	41 m,p-Xylene(s)	106.00	11.936	11.936 (1.060)	563131	500	540
	42 Bromoform	173.00	12.482	12.482 (2.060)	98619	250	300
	43 Styrene	104.00	12.556	12.556 (1.115)	475284	250	250
	44 o-Xylene	106.00	12.630	12.630 (1.122)	276100	250	270
	45 1,1,2,2-Tetrachloroethane	83.00	13.117	13.117 (1.165)	190259	250	300
*	16 Bromochloromethane	128.00	4.200	4.200 (1.000)	60744	250	
*	23 1,4-Difluorobenzene	114.00	6.060	6.060 (1.000)	379288	250	
*	37 Chlorobenzene-d5	117.00	11.256	11.256 (1.000)	404141	250	
\$	18 1,2-Dichloroethane-d4	102.00	5.011	5.011 (1.193)	25935	250	250
\$	31 Toluene-d3	98.00	8.746	8.746 (0.777)	523025	250	230
\$	46 Bromofluorobenzene	95.00	13.471	13.471 (1.197)	299349	250	280

Data File: /chem/m.i/m950924.b/m267cc1.d Report Date: 24-Sep-1995 18:00

					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
		==	D===== ECZESS			*****
34 2-Hexanone	43.00	9.558	9.558 (0.847)	134561	250	380
35 Dibromochloromethane	129.00	9.824	9.824 (1.613)	169446	250	320
36 Tetrachloroethene	164.00	10.252	10.252 (0.908)	150387	250	260
38 Chlorobenzene	112.00	11.345	11.345 (1.005)	441864	250	250
M 39 Xylene (Total)	106.00			861941	750	790
40 Ethylbenzene	106.00	11.758	11.758 (1.042)	230802	250	270
41 m,p-Xylene(s)	106.00	11.980	11.980 (1.062)	567847	500	520
42 Bromoform	173.00	12.511	12.511 (2.055)	127300	250	350
43 Styrene	104.00	12.585	12.585 (1.115)	511637	250	250
44 o-Xylene	106.00	12.659	12.659 (1.122)	294094	250	270
45 1,1,2,2-Tetrachloroethane	83.00	13.161	13.161 (1.166)	197168	250	290
* 16 Bromochloromethane	128.00	4.244	4.244 (1.000)	64827	250	
* 23 1,4-Difluorobenzene	114.00	6.089	6.089 (1.000)	417600	250	
* 37 Chlorobenzene-d5	117.00	11.286	11.286 (1.000)	429645	250	
\$ 18 1,2-Dichloroethane-d4	102.00	5.056	5.056 (1.191)	26963	250	240
\$ 31 Toluene-d8	98.00	8.776	8.776 (0.778)	<b>577554</b>	250	240
\$ 46 Bromofluorobenzene	95.00	13.516	13.516 (1.198)	317166	250	280

Instrument: m.i

Data File: /chem/m.i/m950924.b/m267cc1.d

Report Date: 04-Oct-1995 08:53

# SPL Houston Labs

# CONTINUING CALIBRATION COMPOUNDS

Instrument ID: m.i
Lab File ID: m267cc1.d

Analysis Type: WATER

Lab Sample ID: Quant Type: ISTD Injection Date: 24-SEP-1995 17:22

Init. Calibration Date(s): 08/17/95 08/17/95
Init. Calibration Times: 10:57 13:29

Method File: /chem/m.i/m950924.b/mvoclpw.m

		1		MIN		MAX
	COMPOUND	RRF	RF250	RRF	<b>%</b> D	%D
=:	=======================================	=======================================	=======	=====	=====	====
	1 Chloromethane	2.076		0.010		40.0
	2 Vinyl Chloride	1.610	1.430	0.100	11.2	25.0
	3 Bromomethane	1.206	1.072	0.100	11.1	25.0
	4 Chloroethane	0.822	0.730	0.010	11.2	40.0
	5 Trichlorofluoromethane	1.956	1.881	0.010	3.8	40.0
	6 Acetone	0.388	0.248	0.010	36.0	100.0
	7 1,1-Dichloroethene	1.368	1.372	0.100	0.3	25.0
	8 Methylene Chloride	1.961	1.941	0.010	1.0	40.0
M	12 1,2-Dichloroethene (total)	2.049	2.163	0.010	5.6	100.0
	9 Carbon Disulfide	5.106	4.797	0.010	6.0	40.0
	10 trans-1,2-Dichloroethene	1.924	1.970	0.010	2.4	100.0
	11 1,1-Dichloroethane	3.781	3.709	0.200	1.9	25.0
	13 Vinyl Acetate	4.598	4.367	0.010	5.0	100.0
	14 2-Butanone	1.086	1.255	0.010	15.6	100.0
	15 cis-1,2-Dichloroethene	2.174	2.357	0.010	8.4	25.0
	17 Chloroform	4.435	5.008	0.200	12.9	25.0
	19 1,1,1-Trichloroethane	0.562	0.621	0.100	10.6	25.0
	20 1,2-Dichloroethane	3.670	4.135	0.100	12.7	25.0
	21 Benzene	1.553	1.375	0.500	11.5	25.0
	22 Carbon Tetrachloride	0.408	0.516	0.100	26.3	40.0
	24 1,2-Dichloropropane	0.323	0.354	0.010	9.7	25.0
	25 Trichloroethene	0.328	0.347	0.300	5.8	25.0
	26 Bromodichloromethane	0.525	0.635	0.200	20.9	25.0
	27 2-Chloroethylvinylether	0.190	0.017	0.010	91.0	100.0
	28 4-Methyl-2-Pentanone	0.316	0.328	0.010		100.0
	29 cis-1,3-Dichloropropene	0.548	0.638 0	.100	16.4	25.0
	30 trans-1,3-Dichloropropene	0.527	0.591	0.100	12.1	25.0
	32 Toluene	0.982	0.958	.400	2.5	
	33 1,1,2-Trichloroethane	0.248	0.295 0	.100	19.1	25.0
	34 2-Hexanone	0.208	0.313 0	.010	50.3 1	.00.0
	35 Dibromochloromethane	0.314	0.406 0	100	29.1	40.0
	36 Tetrachloroethene	0.343	0.350 0	200	2.1	
	38 Chlorobenzene	1.032	1.028 0	.500	0.3	25.0
i	39 Xylene (Total)	0.637	0.669]0	.300	5.0	25.0
	40 Ethylbenzene	0.501	0.537 0	.100	7.2	
	41 m,p-Xylene(s)	0.641	0.661 0		3.0	
	42 Bromoform	0.220	0.305 0		38.7	
	43 Styrene	1.170	1.191 0	.300[	1.7	
	44 o-Xylene	0.627	0.685 0		9.2	
	45 1,1,2,2-Tetrachloroethane	0.394	0.459 0		16.6	
		i		- 1		,

Data File: /chem/m.i/m950924.b/m267cc1.d

Report Date: 04-Oct-1995 08:53

# SPL Houston Labs

# CONTINUING CALIBRATION COMPOUNDS

Instrument ID: m.i Lab File ID: m267cc1.d Analysis Type: WATER

Lab Sample ID: Quant Type: ISTD Injection Date: 24-SEP-1995 17:22

Init. Calibration Date(s): 08/17/95 08/17/95
Init. Calibration Times: 10:57 13:29
Method File: /chem/m.i/m950924.b/mvoclpw.m

		MIN	1	MAX
RRF	RF250	RRF	%D I	%D
	========	====]		
0.433		. ,		
1.424			,	
0.659				25.0
	0.433	0.433 0.416	RRF   RF250   RRF           0.433   0.416   0.010     1.424   1.344   0.010	RRF   RF250   RRF   %D   

Data File: /chem/m.i/m950924.b/m267cc1.d

Report Date: 24-Sep-1995 18:00

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/m.i/m950924.b/m267cc1.d

Lab Smp Id:

Inj Date : 24-SEP-1995 17:22

: GT Operator Inst ID: m.i

Smp Info : VSTD050

Misc Info : M267W1/M267B01/M267CC1

Comment

Method : /chem/m.i/m950924.b/mvoclpw.m Meth Date : 24-Sep-1995 18:00 george Quant Type: ISTD

Cal Date : 24-SEP-1995 17:22 Cal File: m267cc1.d

Als bottle: 2 Continuing Calibration Sample

Dil Factor: 1.000 Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	* = = =	==		=======	======	======
1 Chloromethane	50.00	1.453	1.453 (0.342)	96917	250	180
2 Vinyl Chloride	62.00	1.512	1.512 (0.356)	92694	250	220
3 Bromomethane	94.00	1.704	1.704 (0.402)	69498	250	220
4 Chloroethane	64.00	1.763	1.763 (0.415)	47318	250	220
5 Trichlorofluoromethane	100.90	2.029	2.029 (0.478)	121929	250	240
6 Acetone	58.00	2.103	2.103 (0.496)	16084	250	160
7 1,1-Dichloroethene	96.00	2.369	2.369 (0.558)	88911	250	250
8 Methylene Chloride	84.00	2.561	2.561 (0.603)	125825	250	250
M 12 1,2-Dichloroethene (total)	96.00			280492	500	530
9 Carbon Disulfide	76.00	2.649	2.649 (0.624)	311006	250	230
10 trans-1,2-Dichloroethene	96.00	3.019	3.019 (0.711)	127715	250	260
11 1,1-Dichloroethane	63.00	3.270	3.270 (0.770)	240445	250	240
13 Vinyl Acetate	43.00	3.358	3.358 (0.791)	283078	250	240
14 2-Butanone	43.00	3.698	3.698 (0.871)	81378	250	290
15 cis-1,2-Dichloroethene	96.00	3.978	3.978 (0.937)	152777	250	270
17 Chloroform	83.00	4.244	4.244 (1.000)	324643	250	280
19 1,1,1-Trichloroethane	97.00	5.056	5.056 (0.830)	259482	250	280
20 1,2-Dichloroethane	62.00	5.174	5.174 (1.219)	268066	250	280
21 Benzene	78.00	5.558	5.558 (0.913)	574057	250	220
22 Carbon Tetrachloride	117.00	5.572	5.572 (0.915)	215391	250	320
24 1,2-Dichloropropane	63.00	6.709	6.709 (1.102)	147895	250	270
25 Trichloroethene	130.00	6.739	6.739 (1.107)	144716	250	260
26 Bromodichloromethane	83.00	6.975	6.975 (1.145)	265224	250	300
27 2-Chloroethylvinylether	63.00	7.742	7.742 (1.271)	7152	250	22
28 4-Methyl-2-Pentanone	43.00	8.038	8.038 (1.320)	136882	250	260
29 cis-1,3-Dichloropropene .	75.00	8.038	8.038 (1.320)	266519	250	290
30 trans-1,3-Dichloropropene	75.00	8.850	8.850 (1.453)	246947	250	280
32 Toluene	92.00	8.909	8.909 (0.789)	411452	250	240
33 1,1,2-Trichloroethane	83.00	9.042	9.042 (1.485)	123368	250	300

Data File: /chem/m.i/m950924.b/m267cc1.d

Report Date: 24-Sep-1995 18:00

#### SPL Labs

### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: m.i Lab File ID: m267cc1.d

Lab Smp Id:

Analysis Type: VOA Quant Type: ISTD

Operator: GT

Method File: /chem/m.i/m950924.b/mvoclpw.m

Misc Info: M267W1/M267B01/M267CC1

Calibration Date: 09/24/95 Calibration Time: 1722

Level: LOW

Sample Type: WATER

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
16 Bromochloromethane	64827	32414	129654	64827	0.00
23 1,4-Difluorobenzene	417600		835200	417600	0.00
37 Chlorobenzene-d5	429645	214822	859290	429645	0.00

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
======================================	=======	=======	=======	=======	======
16 Bromochloromethane	4.24	3.74	4.74	4.24	0.00
23 1,4-Difluorobenzene	6.09	5.59	6.59	6.09	0.00
37 Chlorobenzene-d5	11.29	10.79	11.79	11.29	0.00

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument; m.i



SPL BATCH QUALITY CONTROL REPORT \*\*
Modified 8015 - Gasoline

HOUSTON LABORATORY
PAGE 8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix: Units: Aqueous mg/L

Batch Id: HP\_J950926131201

# LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons	ND	1.0	1.05	105	56 - 139

# MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix	Spike	Matrix Dupli	Spike	MS/MSD Relative %	Ì	Limits(***) (Advisory)
	<2>	<3>	Result <1>	Recovery <4>	Result <1>	Recovery <5>	Difference		Recovery Range
PETROLEUM HYDROCARBONS	ND	0.9	0.78	86.7	0.78	86.7	0	18	40 - 158

Analyst: RR

Sequence Date: 09/26/95

SPL ID of sample spiked: 9509942-05A

Sample File ID: JJ\_\_302.TX0

Method Blank File ID:

Blank Spike File ID: JJ\_299.TX0

Matrix Spike File ID: JJ\_\_326.TX0

Matrix Spike Duplicate File ID: JJ\_\_327.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 101

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x 100

(\*\*) = Source: SPL Historical data

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH(SPL ID):

9509952-03A 9509943-01A 9509943-02A 9509943-03A

9509943-04A 9509943-05A 9509943-06A 9509942-03A

9509942-01A 9509863-02C 9509942-05A 9509942-02A

9509942-04A 9509942-06A

OC Officer



\* SPL BATCH QUALITY CONTROL REPORT \*\*
Modified 8015 - Gasoline

HOUSTON LABORATORY

B880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix: Units: Aqueous

mg/L

Batch Id: HP\_J950927140701

#### LABORATORY CONTROL SAMPLE

SPIKE	Method	Spike	Blank	Spike	QC Limits(**)
сомроиноѕ	Blank Result <2>	Added <3>	Result <1>	Recovery %	(Mandatory) % Recovery Range
Petroleum Hydrocarbons	ND	1.0	1.0	100	56 - 139

#### MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results			MS/MSD Relative %					
	<b>&lt;2&gt;</b> ,	<3>	Result <1>	Recovery <4>	Result <1>	Recovery <5>	Difference	RPD Max.	Recovery Range
PETROLEUM HYDROCARBONS	ND	0.9	0.88	97.8	0.86	95.6	2.28	18	40 - 158

Analyst: RR

Sequence Date: 09/27/95

SPL ID of sample spiked: 9509A72-04A

Sample File ID: JJ\_\_351.TX0

Method Blank File ID:

Blank Spike File ID: JJ\_330.TX0

Matrix Spike File ID: JJ\_\_357.TX0

Matrix Spike Duplicate File ID: JJ\_\_358.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [( <1> - <2> ) / <3> ] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x 100

(\*\*) = Source: SPL Historical data

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH(SPL ID):

9509839-14A 9509863-01C

9C Officer



SPL BATCH QUALITY CONTROL REPORT \*\* Modified 8015 - Gasoline

HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054

PHONE (713) 660-0901

Matrix: Units:

Aqueous mg/L

Batch Id: HP\_R950925120300

# LABORATORY CONTROL SAMPLE

S P I K E C O M, P O U N D S	Method Blank Result <2>	Spike Added <3>	Result	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons	ND	1.0	0.74	74.0	56 - 139

### MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix	Spike	Matrix Dupli	Spike cate	MS/MSD Relative %		Limits(***) (Advisory)
	<2>	<3>	Result <1>	Recovery <4>	Result <1>		Difference		Recovery Range
PETROLEUM HYDROCARBONS	ND	0.9	0.64	71.1	0.57	63.3	11.6	18	40 - 158

Analyst: RR

Sequence Date: 09/26/95

SPL ID of sample spiked: 9509892-01A

Sample File ID: RR\_\_417.TXO

Method Blank File ID:

Blank Spike File ID: RR\_\_428.TX0 Matrix Spike File ID: RR\_\_441.TX0

Matrix Spike Duplicate File ID: RR\_\_442.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [( <1> - <2> ) / <3> ] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5> ) x 0.5] x 100

(\*\*) = Source: SPL Historical data

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH(SPL ID):

9509850-01A 9509850-02A 9509863-03C 9509863-04C



SPL BATCH QUALITY CONTROL REPORT \*\* Wisconsin DNR Modified DRO HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix: Units:

Aqueous mg/L

Batch Id: HP\_T950928153200

# LABORATORY CONTROL SAMPLE

SPIKE	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Diesel Range Organics	ND	5.0	5.28	106	50 - 150

# MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Matrix		Spike	Matrix Spike Duplicate		MS/MSD Relative %			
	<2>	<3>	Result <1>	Recovery <4>	Result <1>	Recovery <5>	Difference	RPD Max.	Recovery Range	
DIESEL RANGE ORGANICS	0.18	2.5	1.29	44.4	0.99	32.4	31.2	43	20 - 177	

Analyst: SEG

Sequence Date: 09/27/95

SPL ID of sample spiked: 9509861-01B

Sample File ID: T\_\_230.TX0

Method Blank File ID:

Blank Spike File ID: TT\_591.TX0 Matrix Spike File ID: T\_\_231.TX0

Matrix Spike Duplicate File ID: T\_\_232.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [( <1> - <2> ) / <3> ] x 100

LCS % Recovery = (<1> / <3> ) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5> ) x 0.5] x 100

(\*\*) = Source: SPL-Temporary Limits

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH(SPL ID):

9509863-03B 9509863-04B 9509863-01B 9509863-02B

ftware Version: 3.2 <16C20>

Cample Name : STD\_0.9 Time : 09/25/95 23:52 Sample Number: TC ;W;1 Study : MODWG;1;PQL

Operator : RR

: KK

Channel: B A/D mV Range: 1000

nstrument : HP\_R AutoSampler : NONE Rack/Vial : 0/0

nterface Serial #: 3291270006 Data Acquisition Time: 09/25/95 23:30

Telay Time : 0.00 min.
End Time : 21.55 min.
Sampling Rate : 5.0000 pts/sec

www.Data\_File : l:\data\tchrom\btex\hp\_r\RR\_\_426.raw
Result\_File : l:\data\tchrom\btex\hp\_r\RR\_\_426.rst
Instrument\_File: L:\DATA\TCHROM\BTEX\METHODS\BTEXR.ins
Pocess\_File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDR.prc
ample\_File : L:\DATA\TCHROM\BTEX\METHODS\RWG09075.smp
sequence\_File : L:\DATA\TCHROM\BTEX\METHODS\BTEXR.seq

inj. Volume : 2 ul ample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

#### PURFID Area Percent Report

	Ret Time	Area	Height BL		RF VALUE	PURFID AMT.	Component	RAW AMT PPB	RAW AMT. PURFID PPM
<b></b> #	[min]	[uV-sec]	[uV]	Amount		PPM	Name		PORFID FFM
1	3.169	134276.52	23317.05 вв	3.3887e5	5.1200	1.0099	2-metylpentane	0.3963	
<b>—</b> 2	5.401	110334.71	18407.26 BB	4.8101e5	5.1200	1.0099	Benzene	0.2294	
3	5.860	144143.52	24493.94 BV	1986.3381	5.1200	1.0099	1,4-DIFLUOROBENZENE	72.5675	
4	6.086	129784.87	15289.33 VV	1.0000e6	5.1200	1.0099		0.1298	
5	6.463	37985.82	5652.39 VB	5.5143e5	5.1200	1.0099	Heptane	0.0689	
6	6.883	348954.50	50085.94 BB		5.1200	1.0099	TFT	0.0000	1.0099
7	9.247	323314.94	46389.33 BB	9.2484e5	5.1200	1.0099	Toluene	0.3496	
8	13.824	97953.63	26960.56 BV	2.8445e5	5.1200	1.0099	Ethyl_Benzene	0.3444	1.0099
9	13.990	204103.81	64164.26 VB	6.1534e5	5.1200	1.0099	m - Xylene	0.3317	1.0099
10	14.402	206519.22	83672.66 BB	2.0385e6	5.1200	1.0099	o-Xylene	0.1013	
11	14.792	78595.59	39532.70 BB	794.0092	5.1200	1.0099	4-BROMOFLUOROBENZENE	98.9857	
12	15.205	174.52	113.97 BB	1.0000e6	5.1200	1.0099		0.0002	
113	15.315	887.58	521.80 BB	1.0000e6	5.1200	1.0099		0.0009	
14	15.417	149737.19	86083.41 BV	4.8101e5	5.1200	1.0099	1,2,4-trimethylbenze	0.3113	
15	15.639	975.20	314.22 VB	1.0000e6	5.1200	1.0099		0.0010	
16	19.769	1176.01	295.70 BB	1.0000e6	5.1200	1.0099		0.0012	
_17	20.332	1171.62	254.73 BB	1.0000e6	5.1200	1.0099		0.0012	
18	21.282	2357.18	254.28 BB	1.0000e6	5.1200	1.0099		0.0024	1.0099
		1972446.50	485803.53		92.1600	18.1781		173.8225	18.1781

#### roup Report For :

Peak	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	3.169	134276.52	23317.05 BB	3.3887e5	5.1200	0.6473	2-metylpentane	0.3963	0.6473
2	5.401	110334.71	18407.26 BB	4.8101e5	5.1200	0.6473	Benzene 2,2,4-trimethylpenta	0.2294 0.0000	
<b>5</b> 5	5.500 6.463	0.00 37985.82	0.00 VV 5652.39 VB	5.5143e5	5.1200 5.1200	0.6473	Heptane	0.0689	
7	9.247	323314.94	46389.33 BB	9.2484e5	5.1200	0.6473	Toluene	0.3496	
<b>8</b>	13.824	97953.63	26960.56 BV	2.8445e5	5.1200		Ethyl_Benzene	0.3444 0.3317	
9 <b>—</b> 10	13.990 14.402	204103.81 206519.22	64164.26 VB 83672.66 BB	6.1534e5 2.0385e6	5.1200 5.1200		m - Xylene o-Xylene	0.1013	
12	15.417	149737.19	86083.41 BV	4.8101e5	5.1200		1,2,4-trimethylbenze	0.3113	0.6473
		1264225.75	354646.91		46.0800	5.8256		2.1328	5.8256

### Group Report For : SURROGATE

Peak	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4 6 11	5.860 6.883 14.792	144143.52 348954.50 78595.59	24493.94 VV 50085.94 BB 39532.70 BB	1986.3381 794.0092	5.1200 5.1200 5.1200	0.2927	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	72.5675 0.0000 98.9857	0.2927
		571693.56	114112.59		15.3600	0.8781		171.5532	0.8781

Chromatogram Sample Name : STD\_0.9 Sample #: TC ;W;1 Page 1 of 1 FileName : l:\data\tchrom\btex\hp\_r\RR\_\_426.raw Date: 09/25/95 23:53 Method : BTEXR.ins Time of Injection: 09/25/95 23:30 Start Time : 0.00 min End Time : 21.55 min Low Point: 3.14 mV High Point: 99.33 mV Scale Factor: Plot Offset: 3 mV Plot Scale: 96 mV =13.82 -14.40 -14.79 =15.21 -15.64 -19.77 -20.33 -5.40 -5.86 -6.46 -6.88 Response [mV] 35 30 TI 2-METYLPE-TOLUENE TOLUENE 1,4-DIFL HEPTANE 16 18 20

Retention Time

[min]

\_\_\_\_\_

oftware Version: 3.2 <16C2O>

ample Name : LCS\_1.0 : 09/26/95 12:55 Time Sample Number: TL ;W;1 : MODWG;1;PQL Study

Operator : RR

nstrument : HP\_R AutoSampler : NONE Channel: B A/D mV Range: 1000

Rack/Vial : 0/0

nterface Serial # : 3291270006 Data Acquisition Time: 09/26/95 12:33

elay Time : 0.00 min. End Time : 21.55 min. End Time Sampling Rate : 5.0000 pts/sec

aw Data File : l:\data\tchrom\btex\hp\_r\RR\_\_428.raw Result File : l:\data\tchrom\btex\hp\_r\RR\_\_428.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXR.ins rocess File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDR.prc ample File : L:\DATA\TCHROM\BTEX\METHODS\RWG09075.smp
sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXR.seq

Area Reject : 100.00 inj. Volume : 2 ul ample Amount : 1.0000 Dilution Factor : 1.00

#### PURFID Area Percent Report

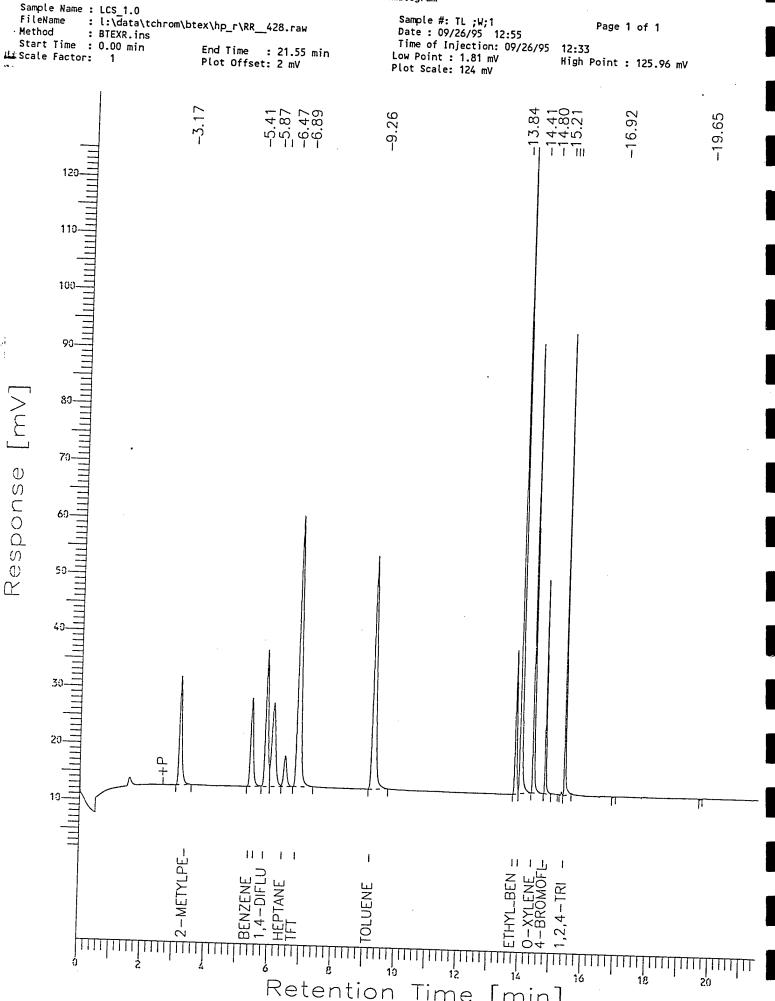
Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	3.168	110670.02	19185.73 BB	3.2592e5	5.1200	1.0288	2-metylpentane	0.3396	1.0288
2	5.405	95097.59	15657.68 BV	4.6263e5	5.1200	1.0288	Benzene	0.2056	1.0288
3	5.865	142783.03	24220.59 VV	1910.4734	5.1200	1.0288	1,4-DIFLUOROBENZENE	74.7370	1.0288
4	6.089	126844.29	14846.22 VV	1.0000e6	5.1200	1.0288		0.1268	1.0288
5	6.466	36596.68	5412.05 VB	5.3037e5	5.1200	1.0288	Heptane	0.0690	1.0288
6	6.888	335626.78	47949.14 BB		5.1200	1.0288	TFT	0.0000	1.0288
7	9.260	288492.31	41275.90 BB	8.8951e5	5.1200	1.0288	Toluene	0.3243	1.0288
8	13.837	90635.27	25476.12 BV	2.7358e5	5.1200	1.0288	Ethyl_Benzene	0.3313	1.0288
9	14.008	363190.41	113056.98 VB	5.9184e5	5.1200	1.0288	m - Xylene	0.6137	1.0288
10	14.411	195994.41	79360.59 BB	1.9607e6	5.1200	1.0288	o-Xylene	0.1000	1.0288
11	14.798	76532.70	38127.12 BB	763.6834	5.1200	1.0288	4-BROMOFLUOROBENZENE	100.2152	1.0288
12	15.208	284.97	127.77 BV	1.0000e6	5.1200	1.0288		0.0003	1.0288
13	15.318	1952.21	687.05 VB	1.0000e6	5.1200	1.0288		0.0020	1.0288
14	15.419	142504.09	81825.09 BB	4.6263e5	5.1200	1.0288	1,2,4-trimethylbenze	0.3080	1.0288
15	16.922	1003.21	251.89 BB	9.9999e5	5.1200	1.0288		0.0010	1.0288
16	19.652	1100.79	347.17 BB	1.0000e6	5.1200	1.0288		0.0011	1.0288
<u> </u>	•••••	2009308.88	507807.06		81.9200	16.4603		177.3748	16.4603

#### Group Report For :

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 5 7 8 9 10	3.168 5.405 5.500 6.466 9.260 13.837 14.008 14.411	110670.02 95097.59 0.00 36596.68 288492.31 90635.27 363190.41 195994.41	19185.73 BB 15657.68 BV 0.00 VV 5412.05 VB 41275.90 BB 25476.12 BV 113056.98 VB 79360.59 BB 81825.09 BB	3.2592e5 4.6263e5 5.3037e5 8.8951e5 2.7358e5 5.9184e5 1.9607e6 4.6263e5	5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200	0.6775 0.6775 0.6775 0.6775 0.6775	2-metylpentane Benzene 2,2,4-trimethylpenta Heptane Toluene Ethyl_Benzene m - Xylene o-Xylene 1,2,4-trimethylbenze	0.3396 0.2056 0.0000 0.0690 0.3243 0.3313 0.6137 0.1000	0.6775 0.6775 0.6775 0.6775 0.6775 0.6775
		1323180.75	381250.13		46.0800	6.0972		2.2914	6.0972

#### Group Report For : SURROGATE

Peak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
6	5.865 6.888 14.798	142783.03 335626.78 76532.70	24220.59 VV 47949.14 BB 38127.12 BB	1910.4734 763.6834	5.1200 5.1200 5.1200	0.2841	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	74.7370 0.0000 100.2152	0.2841
		554942.50	110296.84		15.3600	0.8524		174.9522	0.8524



Software Version: 3.2 <16C2O>

Sample Name : BLANK Sample Number: B ;W;1 Operator : RR

Time Study

: 09/26/95 01:26 : MODWG;1;PQL

Instrument : HP\_R

AutoSampler : NONE

Channel : B

A/D mV Range : 1000

Rack/Vial : 0/0

Interface Serial # : 3291270006 Data Acquisition Time: 09/26/95 01:04

Delay Time : 0.00 min. End Time : 21.55 min. Sampling Rate : 5.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_r\RR\_\_429.raw
Result File : l:\data\tchrom\btex\hp\_r\RR\_\_429.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXR.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDR.prc Sample File : L:\DATA\TCHROM\BTEX\METHOOS\RWG09075.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXR.seq

nj. Volume : 2 ul Sample Amount : 1.0000 Area Reject

: 100.00 Dilution Factor : 1.00

PURFID Area Percent Report

Doot	Ret Time				The second section	r vebol r			
#	(min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10	5.404 5.866 6.894 13.179 13.837 14.007 14.412 14.799 15.424 16.123	399.36 144905.66 332179.63 918.24 280.34 793.29 2403.72 68544.63 506.14 2024.39	83.96 BB 23431.36 BB 46413.81 BB 150.22 BB 76.59 BB 241.90 BB 237.12 BB 32180.73 BB 208.09 BB 135.28 BB	4.5788e5 1890.8512 1.0000e6 2.7077e5 5.8576e5 1.9405e6 755.8397 4.5788e5 1.0000e6	5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200	0.2831 0.2831 0.2831 0.2831 0.2831 0.2831 0.2831	Benzene 1,4-DIFLUOROBENZENE TFI  Ethyl_Benzene m - Xylene o-Xylene 4-BROMOFLUOROBENZENE 1,2,4-trimethylbenze	0.0009 76.6352 0.0000 0.0009 0.0010 0.0014 0.0012 90.6867 0.0011 0.0020	
					51.2000	2.8311		167.3304	2.8311

oup Report For :

# #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT.
1 2 3 5 7 8 9 0 2	3.349 5.404 5.500 6.401 9.176 13.837 14.007 14.412 15.424	0.00 399.36 0.00 0.00 0.00 280.34 793.29 2403.72 506.14	83.96 BB 0.00 VV 0.00 VV	2.7077e5 5.8576e5 1.9405e6	5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200	0.0022 0.0022 0.0022 0.0022 0.0022 0.0022	2-metylpentane Benzene 2,2,4-trimethylpenta Heptane Toluene Ethyl_Benzene m - Xylene o-Xylene 1,2,4-trimethylbenze	0.0000 0.0009 0.0000 0.0000 0.0000 0.0010 0.0014 0.0012 0.0011	0.0022 0.0022 0.0022 0.0022 0.0022 0.0022
		4382.85	847.67		46.0800	0.0202		0.0056	0.0202

Group Report For : SURROGATE

P.	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT	RAW AMT. PURFID PPM
4	5.866 6.894 14.799	144905.66 332179.63 68544.63	23431.36 BB 46413.81 BB 32180.73 BB		5.1200 5.1200 5.1200	0.2794	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	76.6352 0.0000	0.2794 0.2794
_		545629.88	102025.90		15.3600	0.8381		167.3219	0.2794  0.8381

Software Version: 3.2 <16C2O>

Instrument : HP\_R AutoSampler : NONE

Channel: B A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial #: 3291270006 Data Acquisition Time: 09/26/95 13:57

Delay Time : 0.00 min. End Time : 21.55 min. Sampling Rate : 5.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_r\RR\_441.raw
Result File : l:\data\tchrom\btex\hp\_r\RR\_441.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXR.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFIDR.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\RWG09075.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXR.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00

# PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11	3.184 5.437 5.900 6.127 6.506 6.929 8.109 9.304 11.155 13.855 14.016	112826.86 97740.00 146350.05 117113.04 36363.35 349060.38 776.25 286306.13 1149.60 88318.27 184000.77	19553.34 BB 16184.07 BB 24635.46 BV 13742.28 VV 5381.75 VB 49922.90 BB 231.74 BB 41067.69 BB 328.54 BB 25063.93 BV 58334.82 VB	3.3897e5 2.3307e5 1986.9408 1.0000e6 5.5160e5 	5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200	0.9333 0.9333 0.9333 0.9333 0.9333 0.9333 0.9333 0.9333	2-metylpentane 2,2,4-trimethylpenta 1,4-DIFLUOROBENZENE Heptane TFT Toluene Ethyl_Benzene	0.3329 0.4193 73.6560 0.1171 0.0659 0.0000 0.0008 0.3095 0.0012 0.3104	0.9333 0.9333 0.9333 0.9333 0.9333 0.9333 0.9333 0.9333 0.9333
12 13 14 15	14.427 14.816 15.341 15.444	186712.25 77296.58 821.24 137994.64	75472.26 BB 38473.87 BB 473.64 BB 79349.50 BB	2.0391e6 794.2501 1.0000e6 4.8115e5	5.1200 5.1200 5.1200 5.1200	0.9333 0.9333 0.9333 0.9333 0.9333	m - Xylene o-Xylene 4-BROMOFLUOROBENZENE 1,2,4-trimethylbenze	0.2989 0.0916 97.3202 0.0008 0.2868	0.9333 0.9333 0.9333 0.9333 0.9333
_		1822829.38	448215.75		76.8000	13.9993		173.2113	13.9993

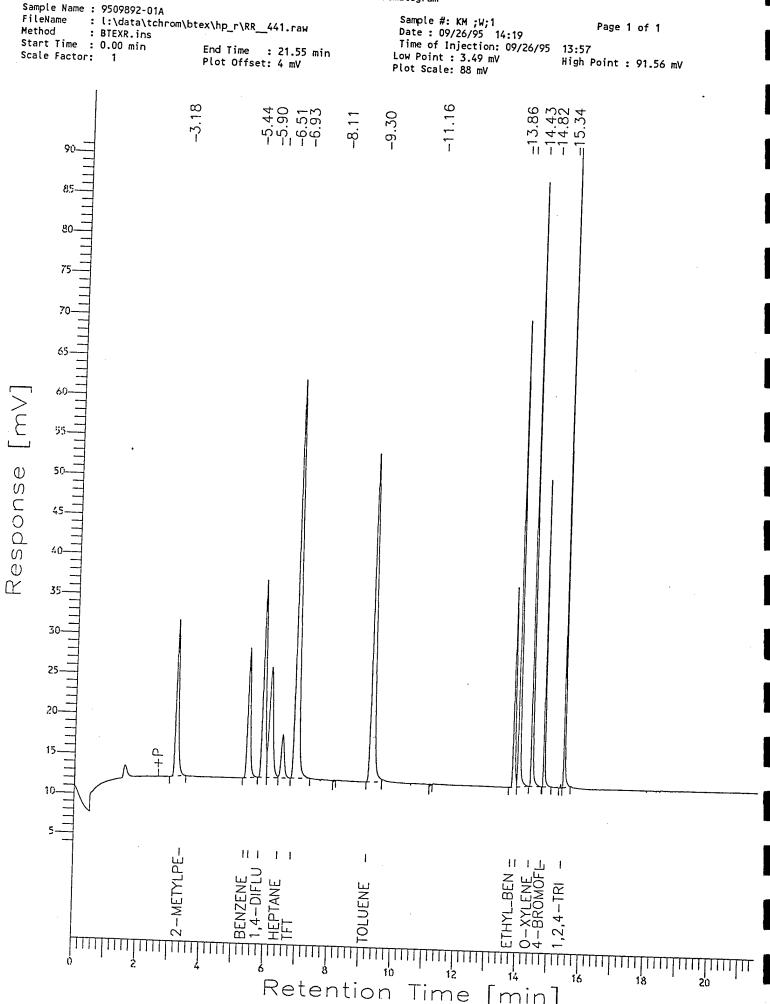
#### Group Report For :

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 5 7 8 9 10 12	3.184 5.344 5.437 6.506 9.304 13.855 14.016 14.427	112826.86 0.00 97740.00 36363.35 286306.13 88318.27 184000.77 186712.25 137994.64	19553.34 BB 0.00 VV 16184.07 BB 5381.75 VB 41067.69 BB 25063.93 BV 58334.82 BB 75472.26 BB 79349.50 BB	3.3897e5 2.3307e5 5.5160e5 9.2512e5 2.8453e5 6.1553e5 2.0391e6 4.8115e5	5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200	0.5787 0.5787 0.5787 0.5787 0.5787 0.5787 0.5787 0.5787	2-metylpentane Benzene 2,2,4-trimethylpenta Heptane Toluene Ethyl_Benzene m - Xylene o-Xylene 1,2,4-trimethylbenze	0.3329 0.0000 0.4193 0.0659 0.3095 0.3104 0.2989 0.0916	0.5787 0.5787 0.5787 0.5787 0.5787 0.5787 0.5787 0.5787
•		1130262.25	320407.38		46.0800	5.2083		2.1153	5.2083

Group Report For : SURROGATE

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
6 11	5.900 6.929 14.816	146350.05 349060.38 77296.58	24635.46 VV 49922.90 BB 38473.87 BB	1986.9408 794.2501	5.1200 5.1200 5.1200	0.2932	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	73.6560 0.0000 97.3202	0.2932
_		572707.00	113032.22		15.3600	0.8797	•	170.9762	0.8797

\_\_\_\_\_\_



Retention

Time

[min]

ftware Version: 3.2 <16C20>
mple Name : 9509892-01A
Sample Number: KMD;W;1

Time Study : 09/26/95 14:46 : MODWG;1;PQL

Operator : RR

nstrument : HP\_R AutoSampler : NONE Channel : B

A/D mV Range: 1000

Rack/Vial : 0/0

hterface Serial # : 3291270006 Data Acquisition Time: 09/26/95 14:24

elay Time : 0.00 min.
End Time : 21.55 min.
Sampling Rate : 5.0000 pts/sec

AW Data File: l:\data\tchrom\btex\hp\_r\RR\_\_442.raw
Result File: l:\data\tchrom\btex\hp\_r\RR\_\_442.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXR.ins
Tocess File: L:\DATA\TCHROM\BTEX\METHODS\PURFIDR.prc
ample File: L:\DATA\TCHROM\BTEX\METHODS\RWG09075.smp
dequence File: L:\DATA\TCHROM\BTEX\METHODS\BTEXR.seq

0,5675

Inj. Volume : 2 ul ample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00

#### PURFID Area Percent Report

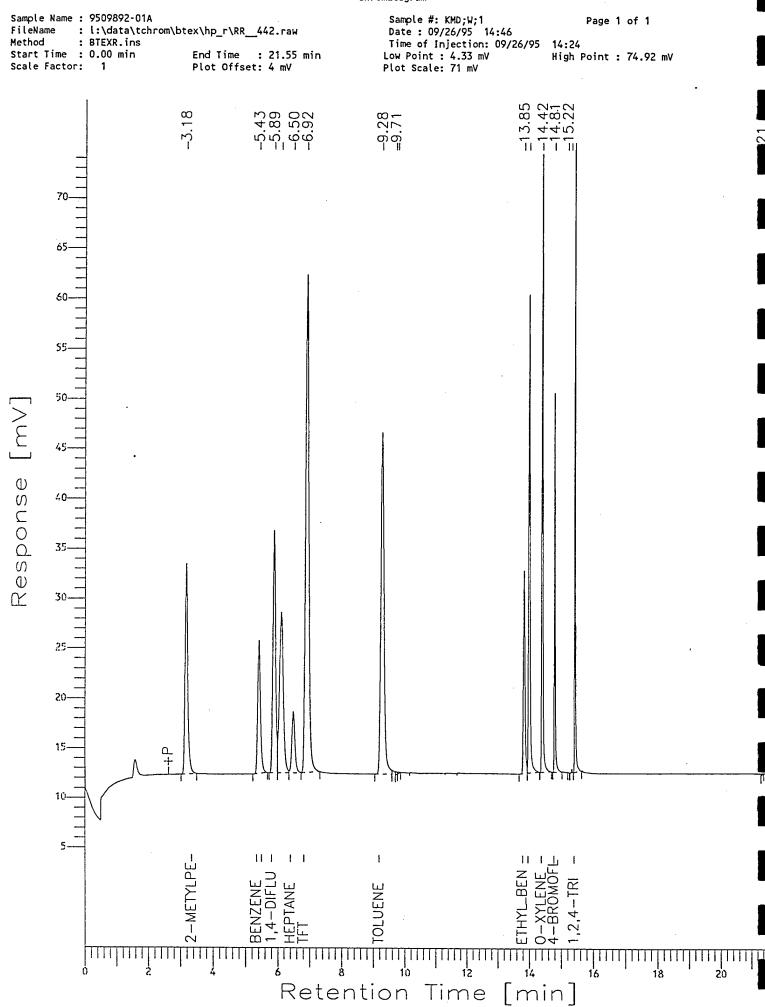
Peal	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	3.180	122250.33	21104.73 BB	3.3656e5	5.1200	0.8582	2-metylpentane	0.3632	0.8582
1 2	5.425	80853.62	13322.96 BB	2.3142e5	5.1200	0.8582	2,2,4-trimethylpenta	0.3494	0.8582
3	5.890	144887.59	24374.19 BV	1972.8226	5.1200	0.8582	1,4-DIFLUOROBENZENE	<i>7</i> 3.4418	0.8582
_ 4	6.117	137486.39	16134.00 VV	1.0000e6	5.1200	0.8582		0.1375	0.8582
5	6.496	41447.18	6160.22 VB	5.4768e5	5.1200	0.8582	Heptane	0.0757	
6	6.916	346580.13	49790.65 BB		5.1200	0.8582	TFT	0.0000	
<b>-</b> 7	9.283	240186.06	34237.54 BB	9.1854e5	5.1200	0.8582	Toluene	0.2615	0.8582
8	9.714	994.85	335.17 BB	1.0000e6	5.1200	0.8582		0.0010	
9	9.787	686.40	204.15 BB	9.9999e5	5.1200	0.8582		0.0007	
10	13.846	72284.73	20348.98 BV	2.8251e5	5.1200	0.8582	Ethyl_Benzene	0.2559	
11	14.009	149285.38	47981.61 VB	6.1116e5	5.1200	0.8582	m - Xylene	0.2443	
12	14.417	152201.69	61902.84 BB	2.0247e6	5.1200	0.8582	o-Xylene	0.0752	
13	14.807	76336.97	37999.65 BB	788.6066	5.1200	0.8582	4-BROMOFLUOROBENZENE	96.7998	
14	15.221	127.25	83.38 BB	9.9999e5	5.1200	0.8582		0.0001	0.8582
15	15.334	623.40	373.57 BB	9.9999e5	5.1200	0.8582		0.0006	
16	15,437	109146.45	62231.36 BB	4.7773e5	5.1200	0.8582	1,2,4-trimethylbenze	0.2285	
17	21.335	686.52	218.82 BB		5.1200	0.8582		0.0007	0.8582
		1676064.88	396803.81		87.0400	14.5885		172.2357	14.5885

#### Froup Report For :

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 5 7 8 9 10 12	3.180 5.344 5.425 6.496 9.283 13.846 14.009 14.417 15.437	122250.33 0.00 80853.62 41447.18 240186.06 72284.73 149285.38 152201.69 109146.45	21104.73 BB 0.00 VV 13322.96 BB 6160.22 VB 34237.54 BB 20348.98 BV 47981.61 BB 61902.84 BB 62231.36 BB	3.3656e5 2.3142e5 5.4768e5 9.1854e5 2.8251e5 6.1116e5 2.0247e6 4.7773e5	5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200 5.1200		2-metylpentane Benzene 2,2,4-trimethylpenta Heptane Toluene Ethyl_Benzene m - Xylene o-Xylene 1,2,4-trimethylbenze	0.3632 0.0000 0.3494 0.0757 0.2615 0.2559 0.2443 0.0752 0.2285	0.4954 0.4954 0.4954 0.4954 0.4954 0.4954
		967655.44	267290.22		46.0800	4.4590		1.8535	4.4590

#### Group Report For : SURROGATE

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4 6 11	5.890 6.916 14.807	144887.59 346580.13 76336.97	24374.19 VV 49790.65 BB 37999.65 BB	1972.8226 788.6066	5.1200 5.1200 5.1200	0.2907	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	73.4418 0.0000 96.7998	0.2907
		567804 69	112164 48		15.3600	0.8722		170.2416	0.8722



Software Version: 3.2 <16C2O>

Sample Name : STD\_0.9 Time : 09/26/95 18:30 Sample Number: TC ;W;1 Study : MODWG;1;PQL Operator : RR

Instrument : HP\_J AutoSampler : NONE

Channel: B A/D mV Range: 1000

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : 1092573380 Data Acquisition Time: 09/26/95 18:12

Delay Time : 0.00 min.

Find Time : 17.33 min.

Sompling Rate : 2.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\varj\JJ\_297.raw
Result File : l:\data\tchrom\btex\varj\JJ\_297.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00

# PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5	2.637 4.607 4.918 5.098 5.257	273059.50 223277.08 280333.63 315464.47 134874.00	35562.15 BB 42298.32 BV 60024.09 VV 49904.45 VV 23320.25 VV	15424.4990 3216.6829 1.0000e6 1.0000e6	3.3725 3.3725 3.3725 3.3725 3.3725 3.3725	1.3203 1.3203 1.3203 1.3203 1.3203	MTBE Benzene 1,4-DIFLUOROBENZENE	35.8452 14.4755 87.1499 0.3155 0.1349	1.3203 1.3203 1.3203 1.3203 1.3203
6 7 8 9 10 11 12	5.593 6.791 8.474 8.690 9.091 9.493 10.718	772735.38 661521.50 167914.50 372213.69 378122.09 136001.69 199298.50	150744.39 VV 142866.70 VB 40362.75 BV 84688.01 VV 88397.07 VV 24396.13 VB 52427.98 BB	14433.5479 10770.5645 13217.9990 10554.2715 1334.7938	3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725	1.3203 1.3203 1.3203 1.3203 1.3203 1.3203 1.3203	TFT Toluene Ethyl_Benzene m and p Xylene o-Xylene 4-BROMOFLUOROBENZENE	0.0000 45.8322 15.5901 28.1596 35.8265 101.8897 0.1993	1.3203 1.3203
		3914816.00	794992.25		40.4700	15.8433	••••••	365.4183	15.8433

Group Report For : SURROGATES

Peak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
5 10	4.918 5.593 9.493	280333.63 772735.38 136001.69	60024.09 VV 150744.39 VV 24396.13 VB		3.3725 3.3725 3.3725	0.4010	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	87.1499 0.0000 101.8897	•••••
<b>.</b>		1189070.75	235164.59		10.1175	1.2030		189.0396	1.2030

**}-----**

Report Stored in ASCII File: l:\data\tchrom\btex\varj\JJ\_297.TX0

tware Version: 3.2 <16C2O>

ple Name : LCS\_1.0 Mample Number: TL;W;1

Time

: 09/26/95 19:25

Study

: MODWG;1;PQL

Channel: B

A/D mV Range: 1000

trument : HP\_J AgtoSampler : NONE Rick/Vial : 0/0

erface Serial # : 1092573380 Data Acquisition Time: 09/26/95 19:08

erface Se : 0.00 min. End-Time : 17.33 min. Sampling Rate : 2.0000 pts/sec

Data File : l:\data\tchrom\btex\varj\JJ\_299.raw esult File : l:\data\tchrom\btex\varj\JJ\_299.rst Result File Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins bcess File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc

nple File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

: 2 ul j. Volume mple Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

PURFID Area Percent Report

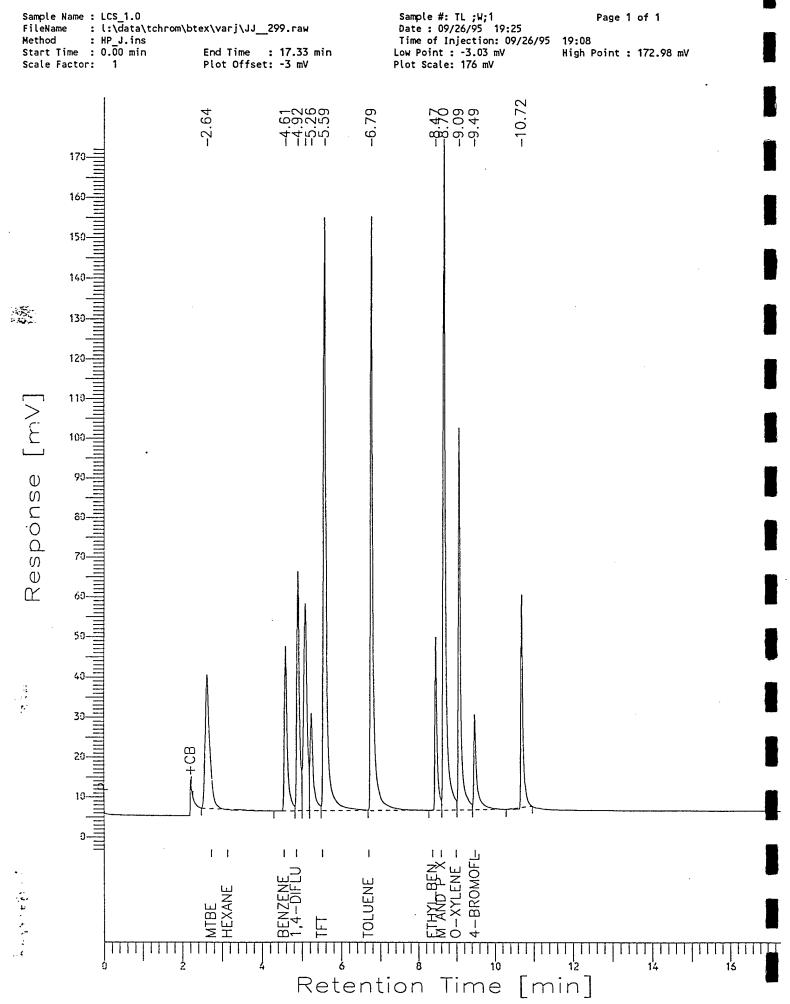
Peak	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 6 6 7 8 9 0 11 12	2.642 4.610 4.920 5.100 5.258 5.594 6.792 8.475 8.697 9.091 9.493 10.715	259833.00 215889.47 283401.03 319691.38 140243.78 752260.63 668165.50 176738.73 721599.25 404843.25 132603.28 199613.25	33417.75 BB 41111.40 BV 60144.33 VV 51690.86 VV 24511.59 VV 148653.47 VV 148429.09 VB 43222.06 BV 167184.94 VV 95816.28 VV 23928.51 VB 53235.70 BB	3131.4522 9.9999e5 1.0000e6  14051.1104 10485.1826 12867.7686	3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725	1.4417 1.4417 1.4417 1.4417 1.4417 1.4417 1.4417	MTBE Benzene 1,4-DIFLUOROBENZENE  TFT Toluene Ethyl_Benzene m and p Xylene o-Xylene 4-BROMOFLUOROBENZENE	35.0373 14.3775 90.5015 0.3197 0.1402 0.0000 47.5525 16.8561 56.0780 39.4023 102.0475 0.1996	1.4417 1.4417 1.4417 1.4417 1.4417 1.4417 1.4417 1.4417 1.4417 1.4417
1		4274882.50	891345.94		40.4700	17.3005		402.5122	17.3005

Group Report For : SURROGATES

al #	k Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
5 0	4.920 5.594 9.493	283401.03 752260.63 132603.28	60144.33 VV 148653.47 VV 23928.51 VB		3.3725 3.3725 3.3725	0.3940	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	90.5015 0.0000 102.0475	0.3940 0.3940 0.3940
		1168264.88	232726.31		10.1175	1.1820		192.5490	1.1820

\_\_\_\_\_\_

Report Stored in ASCII File: L:\data\tchrom\btex\varj\JJ\_299.TX0



ftware Version: 3.2 <16C2O>

mple Name : BLANK Mample Number: B ;W;1 Study

Time

: 09/26/95 19:53 : MODWG;1;PQL

perator

: RR

Channel: B

A/D mV Range: 1000

AutoSampler : HP\_J Rack/Vial : 0/0

terface Serial # : 1092573380 Data Acquisition Time: 09/26/95 19:36

: 0.00 min. Delay Time -- End-Time : 17.33 min. ampling Rate : 2.0000 pts/sec

w Data File : l:\data\tchrom\btex\varj\JJ\_300.raw : l:\data\tchrom\btex\varj\JJ\_300.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins ocess File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp ample file : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.sequence file : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

nj. Volume mple Amount : 1.0000

: 2 ul

Area Reject

: 100.00

Dilution Factor : 1.00

### PURFID Area Percent Report

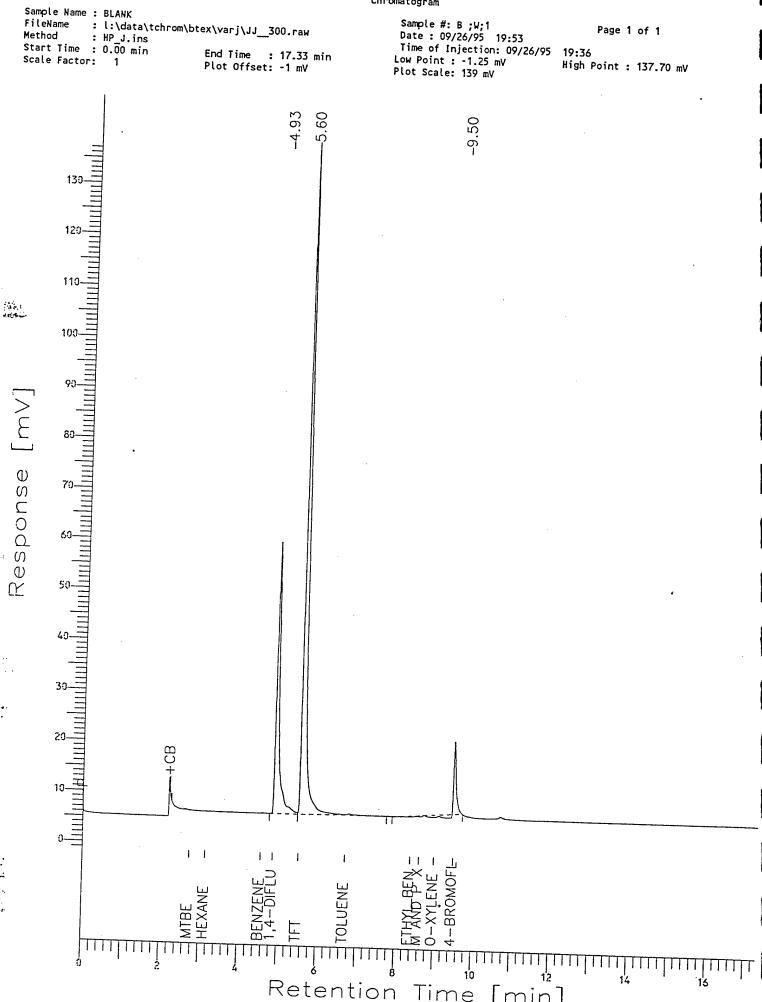
Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2	4.925 5.599 9.503	304376.50 685236.50 43429.75	53672.19 BV 131321.48 VB 14480.81 BB		3.3725 3.3725 3.3725	0.3484	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	106.7071 0.0000 36.6913	0.3484
		1033042.75	199474.48		10.1175	1.0452		143.3984	1.0452

Tup Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4 5 10	4.925 5.599 9.503	304376.50 685236.50 43429.75	53672.19 BV 131321.48 VB 14480.81 B8		3.3725 3.3725 3.3725	0.3484	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	106.7071 0.0000 36.6913	
		1033042.75	199474.48		10.1175	1.0452		143.3984	1.0452

END

Report Stored in ASCII File: [:\data\tchrom\btex\varj\JJ\_300.TX0



oftware Version: 3.2 <16C2O>

ample Name : STD\_0.9 ample Name : STD\_0.9
Sample Number: TC ;W;1
Derator : RR Study

: 09/27/95 01:28 : MODWG;1;PQL

Operator : RR

Channel : B

A/D mV Range : 1000

nstrument : HP\_J \*\* AutoSampler : NONE & Rack/Vial : 0/0

nterface Serial # : 1092573380 Data Acquisition Time: 09/27/95 01:10

elay Time : 0.00 min. End Time : 17.33 min. Sampling Rate : 2.0000 pts/sec

aw Data File : l:\data\tchrom\btex\varj\JJ\_312.raw
Result File : l:\data\tchrom\btex\varj\JJ\_312.rst Result File Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins rocess File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc ample File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

nj. Volume ample Amount : 1.0000

: 2 ul

Area Reject

: 100.00

Dilution Factor : 1.00

#### **PURFID Area Percent Report**

5 5.256 115046.56 19781.05 VV 1.0000e6 3.3725 1.3828 0.6 6 5.592 7777382.94 158021.14 VV 3.3725 1.3828 TFT 0.7 7 6.790 684061.81 158043.44 VB 14520.3574 3.3725 1.3828 Toluene 47.8 8 8.471 178012.38 45874.02 BV 10835.3428 3.3725 1.3828 Ethyl_Benzene 16.9 9 8.687 389808.69 97078.70 VV 13297.4981 3.3725 1.3828 m and p Xylene 29.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.000 3.0	RAW AMT. PURFID PPM
13 13.478 19708.50 3628.59 BB 1.0000e6 3.3725 1.3828 0.14 14.377 36673.50 2249.59 BB 1.0000e6 3.3725 1.3828 0.14 14.377 36673.50 2249.59 BB 1.0000e6 3.3725 1.3828	1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828 1.3828

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4 5 10	4.919 5.592 9.488	300123.19 777382.94 162444.19	64381.12 VV 3 158021.14 VV 31735.83 VV		3.3725 3.3725 3.3725	0.4182	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	92.7443 0.0000 120.9722	0.4182 0.4182 0.4182
		1239950.25	254138.09		10.1175	1.2545		213.7165	1.2545

Report Stored in ASCII File: l:\data\tchrom\btex\varj\JJ\_312.TX0

Sample Name : STD\_0.9 Sample #: TC ;W;1 Page 1 of 1 FileName : l:\data\tchrom\btex\varj\JJ\_\_312.raw Date: 09/27/95 01:28 Method : HP\_J.ins Start Time : 0.00 min Time of Injection: 09/27/95 01:10 End Time : 17.33 min Low Point : -2.60 mV High Point: 164.66 mV Plot Offset: -3 mV Plot Scale: 167 mV Scale Factor: -14.38-15.07-10.71-2.65-4.61 -4.92 -5.26 -5.59 -8:69 -9:09 -9:49 160 Response [mV. MTBE HEXANE 10 15 Retention Time

ftware Version: 3.2 <16C20>

Imple Name : 9509942-05A MS

Time Study

: 09/27/95 13:01 : MODWG;1;PQL

Sample Number: KM ;S;1 Operator

: RR

strument : HP\_J AutoSampler : NONE

Channel : B

A/D mV Range : 1000

Rack/Vial : 0/0

terface Serial # : 1092573380 Data Acquisition Time: 09/27/95 12:44

lay Time : 0.00 min. : 17.33 min. End Time Sampling Rate : 2.0000 pts/sec

w Data File : l:\data\tchrom\btex\varj\JJ\_326.raw
Result File : l:\data\tchrom\btex\varj\JJ\_326.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins ocess File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc
mple File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp equence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

aj. Volume : 2 ul

Area Reject

: 100.00

mple Amount : 1.0000

Dilution Factor : 1.00

#### PURFID Area Percent Report

0.78

Peak #	Ret Time [min]	Area [uV-sec]	Height BL (uV)	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	2.652	225889.97	28001.31 BB	7185.5640	3.3725	1.1648	MTBE	31.4366	1.1648
2	3.269	9938.50	1465.83 BB	2269.6780	3.3725	1.1648	Hexane	4.3788	1.1648
3	4.613	212967.55	39857.98 BV	14549.4170	3.3725	1.1648	Benzene	14.6375	1.1648
4	4.923	269208.34	56273.02 VV	3034.1902	3.3725	1.1648	1,4-DIFLUOROBENZENE	88.7249	1.1648
5	5.101	256912.94	40844.56 VV	9.9999e5	3.3725	1.1648	•	0.2569	1.1648
6	5.259	119701.98	19524.70 VV	1.0000e6	3.3725	1.1648		0.1197	1.1648
7	5.595	728895.63	138034.52 VV		3.3725	1.1648	TFT	0.0000	1.1648
8	6.790	613186.06	129043.22 VB	13614.6875	3.3725	1.1648	Toluene	45.0386	1.1648
9	8.471	149237.22	35633.02 BV	10159.5156	3.3725	1.1648	Ethyl Benzene	14.6894	1.1648
0	8.687	306550.03	67347.77 VV	12468.0986	3.3725	1.1648	m and p Xylene	24.5868	1.1648
<b>-</b> 1	9.088	317341.50	71912.40 VV	9955.4932	3.3725	1.1648	o-Xylene	31.8760	1.1648
12	9.489	139077.25	22540.35 VB	1259.0668	3.3725	1.1648	4-BROMOFLUOROBENZENE	110.4606	1.1648
3	10.713	105029.02	25797.89 BB	1.0000e6	3.3725	1.1648		0.1050	1.1648
		3453936.00	676276.50		43.8425	15.1429		366.3109	15.1429

oup Report For : SURROGATES

Peak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4 5 10	4.923 5.595 9.489	269208.34 728895.63 139077.25	56273.02 VV 138034.52 VV 22540.35 VB		3.3725 3.3725 3.3725	0.3835	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	88.7249 0.0000 110.4606	0.3835 0.3835 0.3835
		1137181.25	216847.88		10.1175	1.1505		199.1855	1.1505

eport Stored in ASCII File: l:\data\tchrom\btex\varj\JJ\_\_326.TXO

Sample Name : 9509942-05A MS Sample #: KM ;S;1 Page 1 of 1 : l:\data\tchrom\btex\varj\JJ\_326.raw
: HP\_J.ins FileName Date: 09/27/95 13:01 Method Time of Injection: 09/27/95 12:44 Start Time : 0.00 min End Time : 17.33 min Low Point : -1.58 mV High Point: 144.03 mV Scale Factor: Plot Offset: -2 mV Plot Scale: 146 mV -2.65 -3.27 -10.71-4.61 -4.92 -5.26 -5.60 -6.79-8:69 -9:09 -9:49 Response [mV] 1 1 MTBE HEXANE ETH O 15

Retention Time

[min]

ftware Version: 3.2 <16C2O>

: 09/27/95 13:29 imple Name : 9509942-05A MSD Time Sample Number: KMD;S;1 : MODWG;1;PQL Study

Operator : RR

strument : HP\_J AutoSampler : NONE

Channel: B A/D mV Range: 1000

Rack/Vial : 0/0

terface Serial # : 1092573380 Data Acquisition Time: 09/27/95 13:11

lay Time : 0.00 min. End Time : 17.33 min. Sampling Rate : 2.0000 pts/sec

w Data File : l:\data\tchrom\btex\varj\JJ\_327.raw Result File : l:\data\tchrom\btex\varj\JJ\_327.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins ocess File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc
mple File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp equence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

<u>Lnj.</u> Volume : 2 ul mple Amount : 1.0000 Area Reject

Dilution Factor : 1.00

#### PURFID Area Percent Report

Peak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	2.644	233961.72	29506.52 BB	7348.6001	3.3725	1.1745	MTBE	31.8376	1.1745
2	3.260	12146.25	1506.78 BB	2321.1753	3.3725	1.1745	Hexane	5.2328	1.1745
3	4.611	217779.86	41536.79 BV	14879.5371	3.3725	1.1745	Benzene	14.6362	1.1745
<u>~</u> 4	4.921	280930.25	59319.05 VV	3103.0344	3.3725	1.1745	1,4-DIFLUOROBENZENE	90.5340	1.1745
5	5.101	273156.25	43266.66 VV	1.0000e6	3.3725	1.1745		0.2732	1.1745
6	5.260	1117,41.53	19636.81 VV	1.0000e6	3.3725	1.1745		0.1117	1.1745
<sup>7</sup>	5.595	745433.88	144946.95 VV		3.3725	1.1745	TFT	0.0000	1.1745
8	6.793	617501.94	134809.11 VB	13923.5977	3.3725	1.1745	Toluene	44.3493	1.1745
9	8.475	153399.16	37274.66 BV	10390.0293	3.3725	1.1745	Ethyl Benzene	14.7641	1.1745
0	8.692	299297.41	67979.02 VV	12750.9941	3.3725	1.1745	m and p Xylene	23.4725	1.1745
<b>4</b> 1	9.093	310418.44	73247.33 VV	10181.3789	3.3725	1.1745	o-Xylene	30.4888	1.1745
12	9.494	132043.47	23523.44 VB	1287.6344	3.3725	1.1745	4-BROMOFLUOROBENZENE	102.5473	1.1745
13	10.718	94758.27	24264.34 BB	1.0000e6	3.3725	1.1745		0.0948	1.1745
		3482568.75	700817.44		43.8425	15.2685		358.3423	15.2685

oup Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4 5 10	4.921 5.595 9.494	280930.25 745433.88 132043.47	59319.05 VV 144946.95 VV 23523.44 VB		3.3725 3.3725 3.3725	0.3907	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	90.5340 0.0000 102.5473	0.3907 0.3907 0.3907
	••••	1158407.63	227789.44		10.1175	1.1720		193.0814	1.1720

eport Stored in ASCII File: l:\data\tchrom\btex\varj\JJ\_\_327.TX0

Chromatogram Sample #: KMD;S;1 Date: 09/27/95 13:29 Sample Name: 9509942-05A MSD Page 1 of 1 FileName : l:\data\tchrom\btex\varj\JJ\_\_327.raw Method : HP J.ins Time of Injection: 09/27/95 13:11 Start Time : 0.00 min End Time : 17.33 min Low Point : -1.91 mV High Point: 150.27 mV Plot Offset: -2 mV Scale Factor: Plot Scale: 152 mV -10.72-4.61 -4.92 -5.26 -5.60 -8.69 -9.09 -6.79150-Response [mV] MTBE HEXANE

Retention Time

[min]

Software Version: 3.2 <16C2O>

Sample Name : STD\_0.9 Sample Number: TC ;W:1

Time Study : 09/27/95 14:24 : MODWG;1;PQL

Operator : RR

Channel: B

A/D mV Range : 1000

Instrument : HP\_J AutoSampler : NONE Rack/Vial : 0/0

Interface Serial #: 1092573380 Data Acquisition Time: 09/27/95 14:07

Delay Time : 0.00 min. End Time : 17.33 min. Sampling Rate : 2.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\varj\JJ\_\_329.raw Result File : L:\data\tchrom\btex\varj\JJ\_329.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

nj. Volume ample Amount : 1.0000

: 2 ul

Area Reject

: 100.00 Dilution Factor : 1.00

# PURFID Area Percent Report

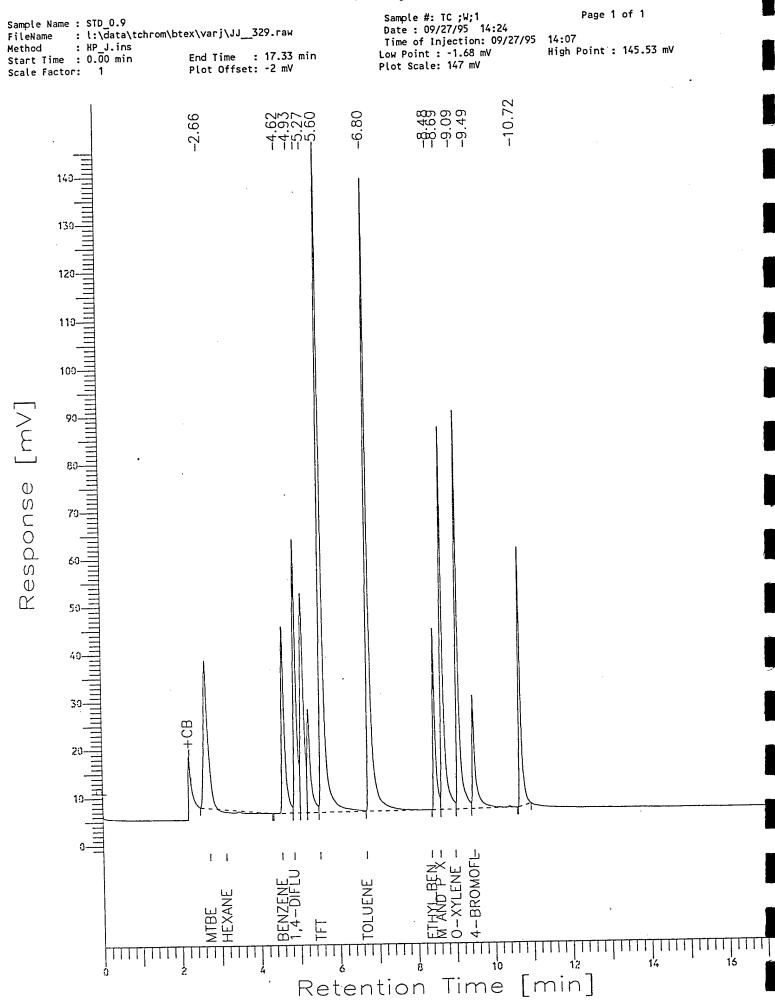
Peak	Ret Time	A =							
#		Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT	RAW AMT.
1 2 3 4 5 6 7 8 9 0 11 12	2.658 4.620 4.929 5.109 5.266 5.601 6.798 8.477 8.693 9.093 9.495 10.717	218796.00 210275.08 277150.09 285555.09 130080.95 727036.44 625497.31 158182.28 354773.66 361372.94 136906.59 210488.00	30906.69 BB 39251.01 BV 57939.40 VV 45981.45 VV 21655.31 VV 138953.03 VV 132953.42 VB 38107.24 BV 80564.19 VV 83995.72 VV 23907.12 VB 54414.99 BB	14512.3057 3026.4512 1.0000e6 1.0000e6 13579.9600 10133.6025 12436.2969 9930.1006 1255.8554	3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725	1.2465 1.2465 1.2465 1.2465 1.2465	MTBE Benzene 1,4-DIFLUOROBENZENE  IFT Toluene Ethyl_Benzene m and p Xylene o-Xylene 4-BROMOFLUOROBENZENE	30.5273 14.4894 91.5759 0.2856 0.1301 0.0000 46.0603 15.6097 28.5273 36.3917 109.0146 0.2105	1.2465 1.2465 1.2465 1.2465 1.2465 1.2465 1.2465 1.2465 1.2465 1.2465 1.2465
<del></del> '					40.4700	14.9582		372.8223	14 9582

oup Report For : SURROGATES

ak #	Ret Time [min]	Area [uV-sec]	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT	RAW AMT. PURFID PPM
5 70	4.929 5.601 9.495	277150.09 727036.44 136906.59	57939.40 vv 3026.45 138953.03 vv 23907.12 vB 1255.85	3 3725	0.3848	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	91.5759	0.3848 0.3848
		1141093.13	220799.53	10.1175	1.1545		200.5906	

\_\_\_\_\_\_

Report Stored in ASCII File: l:\data\tchrom\btex\varj\JJ\_\_329.TX0



oftware Version: 3.2 <16C2O>

Sample Name : LCS\_1.0 Time : 09/27/95 14:52 Sample Number: TL;W;1 Study : MODWG;1;PQL

Operator : RR

nstrument : HP\_J Channel : B A/D mV Range : 1000

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : 1092573380 Data Acquisition Time: 09/27/95 14:35

Delay Time : 0.00 min. End Time : 17.33 min. Sampling Rate : 2.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\varj\JJ\_330.raw
Result File : l:\data\tchrom\btex\varj\JJ\_330.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00

\_\_\_\_\_\_

### PURFID Area Percent Report

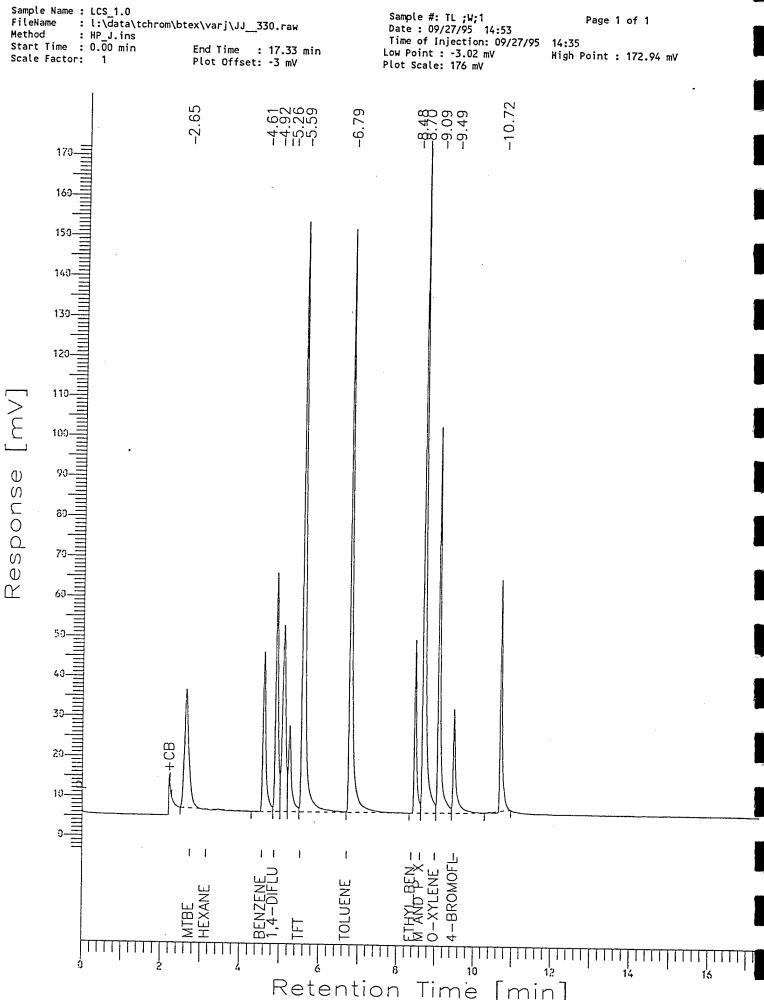
Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10	2.645 4.611 4.920 5.101 5.258 5.594 6.792 8.475 8.698 9.092 9.493	221389.81 207644.64 280260.41 286277.41 122094.11 734894.75 644263.25 172554.69 702920.63 397000.00 136211.19	29718.26 BB 39979.52 BV 60186.24 VV 46641.47 VV 21536.47 VV 147821.73 VV 145508.08 VB 43321.41 BV 16580.72 VV 96366.51 VV	14669.1650 3059.1631 1.0000e6 1.0000e6 13726.7422 10243.1328 12570.7168 10037.4326	3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725	1.3891 1.3891 1.3891 1.3891 1.3891 1.3891 1.3891 1.3891 1.3891	MTBE Benzene 1,4-DIFLUOROBENZENE  TFT Toluene Ethyl_Benzene m and p Xylene o-Xylene 4-BROMOFLUOROBENZENE	30.5589 14.1552 91.6134 0.2863 0.1221 0.0000 46.9349 16.8459 55.9173 39.5520	1.3891 1.3891 1.3891 1.3891 1.3891 1.3891 1.3891
12	10.716	213244.50	57882.81 BB		3.3725	1.3891	- DROUGH COOKODENEENE	0.2132	
		4118755.75	881480.19		40.4700	16.6686		403.5002	16.6686

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL Are	ea/ RF VALUE ount	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
4 5 10	4.920 5.594 9.493	280260.41 734894.75 136211.19	60186.24 VV 3059 147821.73 VV 25937.01 VB 1269	3.3725	0.3883	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	91.6134 0.0000 107.3011	0.3883
		1151366.25	233944.98	10.1175	1.1649		198.9145	1.1649

END

Report Stored in ASCII File: {:\data\tchrom\btex\varj\JJ\_330.TX0



[min]

Software Version: 3.2 <16C2O>

Sample Name : BLANK Sample Number: B ;W;1

Time Study : 09/27/95 15:20 : MODWG;1;PQL

Operator : RR

Instrument : HP\_J

Channel: B

A/D mV Range : 1000

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial #: 1092573380 Data Acquisition Time: 09/27/95 15:03

Delay Time : 0.00 min. End Time : 17.33 min. Sampling Rate : 2.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\varj\JJ\_331.raw
Result File : l:\data\tchrom\btex\varj\JJ\_331.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

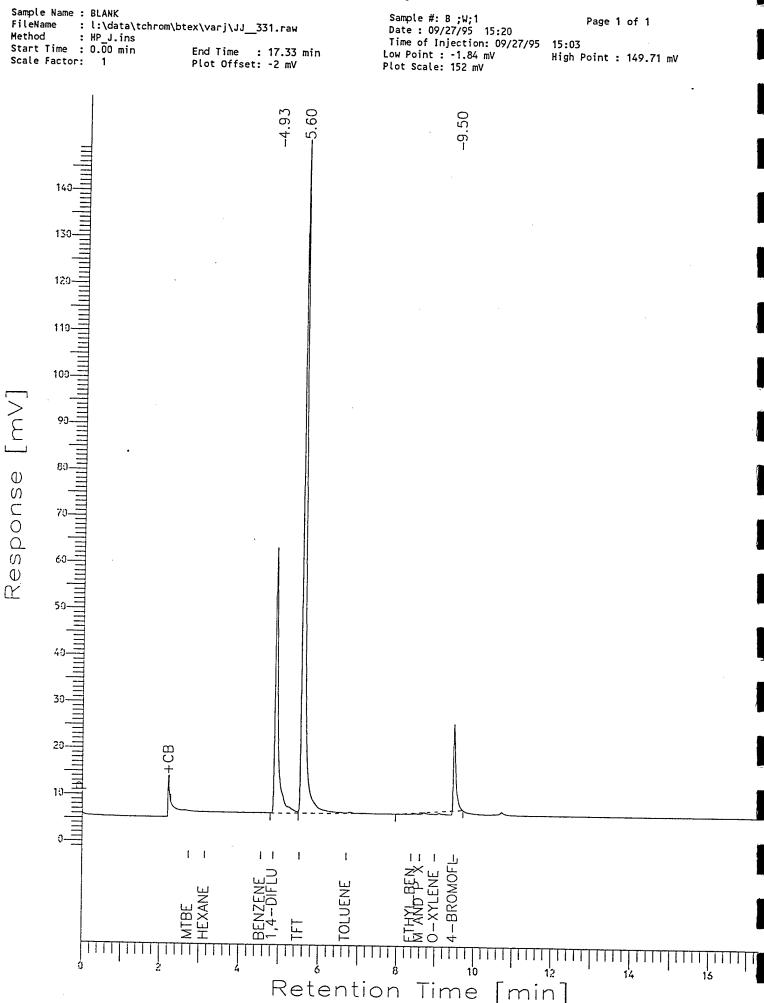
#### PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3	4.925 5.598 9.499	315329.97 735832.06 55781.00	57008.01 BV 143712.69 VB - 18528.72 BB		3.3725 3.3725 3.3725	0.3733	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	102.9459 0.0000 43.8858	0.3733
		1106943.00	219249.41		10.1175	1.1200		146.8317	1.1200

#### Group Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF	VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
5 10	4.925 5.598 9.499	315329.97 735832.06 55781.00	143712.69 VB	3063.0645 1271.0486		3.3725 3.3725 3.3725	0.3733	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	102.9459 0.0000 43.8858	0.3733
		1106943.00	219249.41		1	0.1175	1.1200	• • • • • • • • • • • • • • • • • • • •	146.8317	1.1200

Report Stored in ASCII File: !:\data\tchrom\btex\varj\JJ\_\_331.TX0



oftware Version: 3.2 <16C2O>

ample Name: STD 0.9 : 09/27/95 21:11 Time Sample Number: TC ;W;1 Study : MODWG;1;PQL

Operator : RR

nstrument : HP\_J AutoSampler : NONE

Channel: B A/D mV Range: 1000

Rack/Vial : 0/0

nterface Serial # : 1092573380 Data Acquisition Time: 09/27/95 20:53

elay Time : 0.00 min. End Time : 17.33 min. Sampling Rate : 2.0000 pts/sec

aw Data File : l:\data\tchrom\btex\varj\JJ\_\_343.raw Result File : l:\data\tchrom\btex\varj\JJ\_343.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP J.ins rocess File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc ample File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp equence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXJ.seq

nj. Volume : 2 ul ample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00

#### PURFID Area Percent Report

Peal #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2	2.653 4.615	349687.94 238866.28	44861.09 BB 45198.25 BV		3.3725 3.3725	1.3977 1.3977	MTBE Benzene	46.8144 15.7932	1.3977 1.3977
3 	4.923 5.105	281689.84 333969.44	59567.47 VV 52862.57 VV		3.3725 3.3725	1.3977 1.3977	1,4-DIFLUOROBENZENE	89.3075 0.3340	1.3977
5		148046.56 757715.00	25536.17 VV 146323.28 VV	9.9999e5	3.3725 3.3725	1.3977	TFT	0.1481	1.3977
7	6.792	697430.69	150609.06 VB	14152.9902	3.3725	1.3977	Toluene	49.2780	1.3977
8 9	8.689	174143.88 390374.19	89358.63 VV	10561.2070 12961.0674	3.3725 3.3725	1.3977 1.3977	Ethyl_Benzene m and p Xylene	16.4890 30.1190	1.3977
10 11	9.090 9.491	397240.53 150956.34	92971.07 VV 25314.24 VB	10349.1191 1308.8483	3.3725 3.3725	1.3977 1.3977	o-Xylene 4-BROMOFLUOROBENZENE	38.3840 115.3353	1.3977 1.3977
12	10.714	224254.50	57788.44 BB	1.0000e6	3.3725	1.3977		0.2243	1.3977
		4144375.00	832925.25		40,4700	16.7723		402.2265	16.7723

Group Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height BL Are [uV] Amo	ea/ RF VALUE ount	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
5 10	4.923 5.595 9.491	281689.84 757715.00 150956.34	59567.47 VV 3154 146323.28 VV 25314.24 VB 1308	3.3725	0.4015	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	89.3075 0.0000 115.3353	0.4015
		1190361.25	231205.00	10.1175	1.2044		204.6427	1.2044

Report Stored in ASCII File: \\data\tchrom\btex\varj\JJ\_343.TX0

Retention Time

[min]

.

oftware Version: 3.2 <16C20> ample Name : 9509A72-04A MS

Sample Number: KM ;W;1

Time Study : 9/28/95 10:47 : MODWG;1;PQL

Operator : RR

Channel: B

A/D mV Range: 1000

nstrument : HP\_J AutoSampler : NONE Rack/Vial

nterface Serial # : 1092573380 Data Acquisition Time: 9/28/95 03:22

elay Time : 0.00 min. End Time : 17.33 min. Sampling Rate : 2.0000 pts/sec

aw Data File : l:\data\tchrom\btex\varj\JJ\_\_357.raw Result File : l:\data\tchrom\btex\varj\JJ\_357.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins rocess File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc ample File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp equence File : l:\data\tchrom\btex\methods\092795j.seq

Inj. Volume

: 2 ul

Area Reject

: 100.00

ample Amount : 1.0000

Dilution Factor : 1.00

### PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height B [uV]	L Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 12	2.650 4.611 4.919 5.099 5.256 5.592 6.789 8.470 8.687 9.088 9.488 10.713	163677.50 251360.52 285961.84 158092.36 70057.75 735763.94 719726.19 186164.97 402720.16 413647.25 153699.97 252750.77	48249.60 V	V 14686.5156 V 3062.7813 V 9.9999e5 V 1.0000e6 V V 13742.9766 V 10255.2471 V 12585.5859 V 10049.3037 B 1270.9308	3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725	1.2794 1.2794	MTBE Benzene 1,4-DIFLUOROBENZENE  TFT Toluene Ethyl_Benzene m and p Xylene o-Xylene 4-BROMOFLUOROBENZENE	22.5660 17.1151 93.3667 0.1581 0.0701 0.0000 52.3705 18.1531 31.9985 41.1618 120.9350 0.2528	1.2794 1.2794 1.2794 1.2794
Î		3793623.50	840875.13		40.4700	15.3528		398.1476	15.3528

Group Report For : SURROGATES

eak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT	RAW AMT. PURFID PPM
5 10	4.919 5.592 9.488	285961.84 735763.94 153699.97	61588.48 VV 151114.20 VV 29623.92 VB		3.3725 3.3725 3.3725	0.3964	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	93.3667 0.0000 120.9350	0.3964 0.3964 0.3964
		1175425.75	242326.61	• • • • • • • • • • • • • • • • • • • •	10.1175	1.1892		214.3017	1.1892

Report Stored in ASCII File: l:\data\tchrom\btex\varj\JJ\_\_357.TX0

Chromatogram Sample #: KM ;W;1 Date : 9/28/95 10:47 Sample Name : 9509A72-04A MS Page 1 of 1 FileName : !:\data\tchrom\btex\varj\JJ\_\_357.raw Method : HP\_J.ins Start Time : 0.00 min 03:22 Time of Injection: 9/28/95 End Time : 17.33 min Low Point : -3.00 mV High Point: 173.08 mV Scale Factor: Plot Offset: -3 mV Plot Scale: 176 mV -10.71-4.61 -4.92 -5.26 -5.59 -2.65-8.69 -9.09 -9.49 ώ. Response [mV] ETAXIO PE O-XYLEN MTBE HEXANE 18 Retention Time [min]

Software Version: 3.2 <16C2O> Sample Name : 9509A72-04A MSD

Sample Number: KMD;W;1

Time Study : 9/28/95 10:47 : MODWG;1;PQL

Operator : RR

Rack/Vial

Instrument : HP\_J AutoSampler : NONE : 0/0

Channel: B A/D mV Range : 1000

Interface Serial # : 1092573380 Data Acquisition Time: 9/28/95 03:50

: 0.00 min. : 17.33 min. Delay Time End Time Sampling Rate : 2.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\varj\JJ\_358.raw
Result File : l:\data\tchrom\btex\varj\JJ\_358.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_J.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\PURFID.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\JWG04075.smp Sequence File : l:\data\tchrom\btex\methods\092795j.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00 

#### PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 12	2.655 4.615 4.923 5.103 5.259 5.595 6.792 8.473 8.690 9.090 9.491 10.714	217707.00 230177.16 273482.97 205584.14 79461.91 710724.38 661633.25 167751.17 370552.47 383168.56 143272.81 229256.27	27591.60 BB 43994.27 BV 57541.80 VV 33097.08 VV 13243.53 VV 139938.42 VV 147312.38 VB 41609.66 BV 87241.27 VV 91921.42 VV 25459.68 VB 58769.34 BB	14186.7031 2958.5486 1.0000e6 9.9999e5 	3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725 3.3725	1.2386 1.2386 1.2386 1.2386 1.2386 1.2386 1.2386 1.2386	MTBE Benzene 1,4-DIFLUOROBENZENE  TFT Toluene Ethyl_Benzene m and p Xylene o-Xylene 4-BROMOFLUOROBENŻENE	31.0725 16.2249 92.4382 0.2056 0.0795 0.0000 49.8395 16.9339 30.4799 39.4722 116.7022 0.2293	1.2386 1.2386 1.2386 1.2386 1.2386 1.2386 1.2386 1.2386 1.2386 1.2386 1.2386 1.2386
7		3672772.00	767720.44		40.4700	14.8637		393.6776	14.8637

Group Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
5 10	4.923 5.595 9.491	273482.97 710724.38 143272.81	57541.80 VV 2958.5486 139938.42 VV 25459.68 VB 1227.6785	3.3725 3.3725 3.3725	0.3802	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	92.4382 0.0000 116.7022	0.3802 0.3802 0.3802
		1127480.25	222939.91	10.1175	1.1407		209.1404	1.1407

Report Stored in ASCII File: l:\data\tchrom\btex\varj\JJ\_\_358.TX0

ftware Version: 3.2 <16C2O>

: 0/0

Sample Name : 100 PPM

Time Study : 09/25/95 17:39

: DROW

Sample Number: erator

: SEG

strument : HP\_T AutoSampler : HP\_7673A

Channel: A

A/D mV Range: 1000

Rack/Vial

terface Serial #: 4118271220 Data Acquisition Time: 09(25/95/017:11

Delay Time : 0.50 min. End Time : 28.25 min. mpling Rate : 1.0000 pts/sec

Result File : l:\data\tchrom\pest\hp\_t\T\_\_217.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_217.rst
instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins ocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
mple File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

j. Volume mple Amount : 1.0000

: 1 ul

Area Reject

: 100.00

Dilution Factor : 1.00

15 6.00h

### Area/Concentration Report

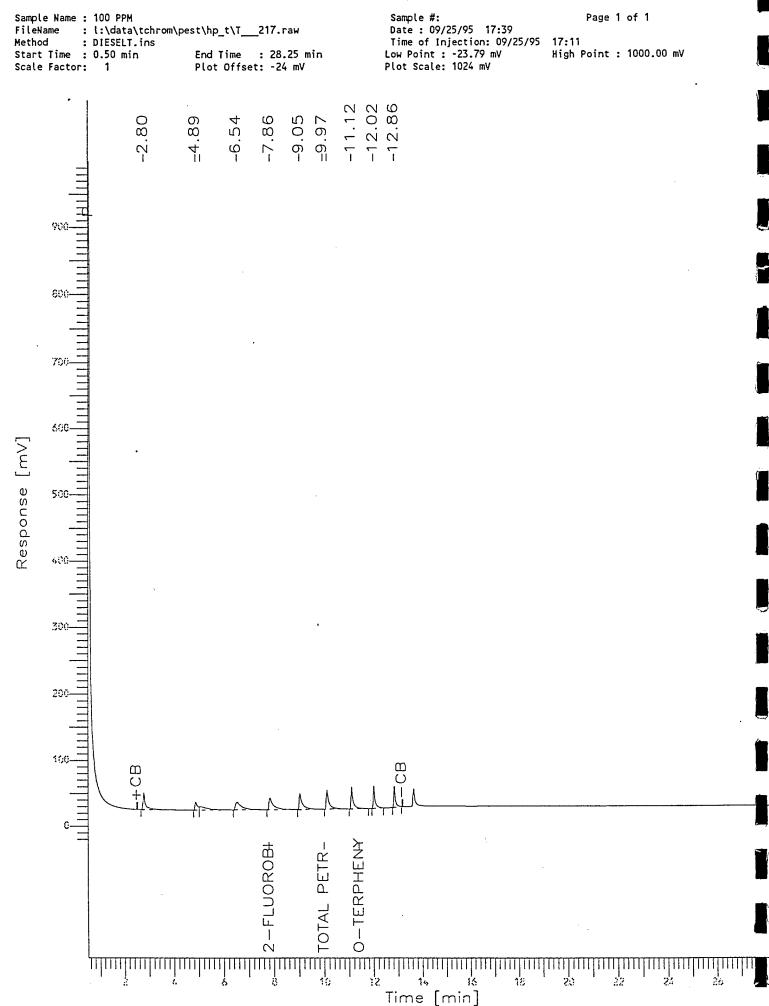
Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT.	Component Name	Amount	
1 2 3 4 5 6 7 8 9 10	2.799 4.893 5.094 6.544 7.865 9.052 9.973 10.131 11.116 12.021 12.859	201991.50 88480.97 129840.88 218031.75 221492.50 222631.33 1507.00 219373.63 208937.00 176548.00 157853.00	25577.33 12705.11 5277.28 11940.67 18088.40 24184.46 195.11 29128.25 32852.33 34043.20 32577.11	BV BV BE BB BB BB BB BB BB BB BB BB BB BB BB	5.0000e5 4.9999e5 4.9999e5 5.0000e5 1778.5000 4.9999e5 1778.5000 5.0000e5 1883.5000 5.0000e5 4.9999e5	-	0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066	93.5514 93.5514 93.5514 93.5514 93.5514 93.5514 93.5514 93.5514 93.5514	2-FLUOROBIPHENYL  Total Petroleum Hydr  o-Terphenyl	0.4040 0.1770 0.2597 0.4361 124.5389 0.4453 0.8473 0.4388 110.9302 0.3531 0.3157	
		1844487 43	226569 5	· र			5.5725	1029.0648		239.1460	

roup Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.865 11.116	221492.50 208937.00	18088.40 BB 32852.39 BB	1778.5000 1883.5000	0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	124.5389 110.9302	
<del></del>		430429.50	50940.79		1.0132	43.6103		235.4691	

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\I\_\_217.TX0

#### Chromatogram



oftware Version: 3.2 <16C20>

ample Name: 375 PPM

perator

Time Study : 09/25/95 18:14

: DROW

Sample Number:

nstrument : HP\_T AutoSampler : HP 7673A Rack/Vial : 0/0

Channel: A

A/D mV Range: 1000

nterface Serial # : 4118271220 Data Acquisition Time: 09/25/95 17:46

velay Time : 0.50 min. End Time : 28.25 min. ampling Rate : 1.0000 pts/sec

 Taw Data File
 : l:\data\tchrom\pest\hp\_t\T\_\_218.raw

 Result File
 : l:\data\tchrom\pest\hp\_t\T\_\_218.rst

 Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins rocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc ample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

nj. Volume : 1 ul ample Amount : 1.0000 Area Reject

: 100.00

Dilution Factor : 1.00

### Area/Concentration Report

Peak	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
<b>4</b>	2.794	825427.63	145657.25	RF	4.9999e5		0.5066	384.8160		1.6509	
ż	3.646	26218.00	643.17		. 5.0000e5		0.5066			0.0524	
<b>3</b>	4.620	2912.50			5.0000e5		0.5066			0.0058	
4	4.885	689071.00			5.0000e5		0.5066			1.3781	
5	5.067	174721.00	6496.06		5.0000e5		0.5066			0.3494	
T 6	6.120	4850.39	714.27		4.9999e5		0.5066			0.0097	•
7	6.263	5799.66	930.27		5.0000e5		0.5066			0.0116	
8	6.479	880477.38			5.0000e5		0.5066			1.7610	
9	7.643	4335.05	785.26		5.0000e5		0.5066			0.0087	
10	7.832	895111.69			1778.5000		0.5066		2-FLUOROBIPHENYL	503.2959	
11	8.861	2755.00			5.0000e5		0.5066	384.8160		0.0055	
12	9.030	898252.00			5.0000e5		0.5066	384.8160		1.7965	
13	9.963	4067.88			1778.5000		0.5066	384.8160	Total Petroleum Hydr	2.2873	
14	10.114	876069.63			5.0000e5		0.5066	384.8160		1.7521	•
15	10.787	2667.00			5.0000e5		0.5066	384.8160		0.0053	
16	10.980	1534.41			5.0000e5		0.5066	384.8160		0.0031	
17	11.102	840893.50		VB	1883.5000		0.5066	384.8160	o-Terphenyl	446.4526	
18	11.882	1515.61			5.0000e5		0.5066	384.8160		0.0030	
₹ 19	12.012	769286.38	212012.06	VB	5.0000e5		0.5066	384.8160		1.5386	
20	12.732	2045.02			5,0000e5		0.5066	384.8160		0.0041	
21	12.851	688191.00			5.0000e5		0.5066	384.8160	•	1.3764	
		7596201.50	1.61e6	. <b></b> 5			10.6384	8081.1348		963.7481	

# Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height ( [uV]	BL Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.832 11.102			3E 1778.5000 VB 1883.5000		_,	2-FLUOROBIPHENYL o-Terphenyl	503.2959 446.4526	
 B		1736005.25	381258.38		1.0132	175.8886		949.7485	

Sample Name : 375 PPM Sample #: Page 1 of 1 : l:\data\tchrom\pest\hp\_t\T\_\_218.raw FileName Date: 09/25/95 18:14 Method : DIESELT.ins Time of Injection: 09/25/95 17:46 End Time : 28.25 min Start Time : 0.50 min Low Point : -23.47 mV High Point : 1000.00 mV Scale Factor: 1 Plot Offset: -24 mV Plot Scale: 1024 mV =10.79 =11.88 =12.73 -2.79 =5.63 =7.64 -8.86 96.6= Response [mV] CB SB TOTAL PETR-

Time [min]

Software Version: 3.2 <16C20>

Sample Name : 500 PPM

Time

Study

: 09/25/95 18:49

0.5399\$6

Sample Number:

Operator

: SEG

Channel: A A/D mV Range: 1000

: DROW

Instrument : HP\_T AutoSampler : HP 7673A Rack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 09/25/95 18:21

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_219.raw Result File : l:\data\tchrom\pest\hp\_t\T\_\_219.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject

: 100.00 Dilution Factor : 1.00

## Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	-					DIESEL AN		Component Name		
1	2.794	1126503.88	207492.02	BE	5.0000e5		0.5066	478.042	 24	2-FILIOROR I PHENYI	2.2530	• • • • • • • • • • • • • • • • • • • •
2	3.644	30873.00	848.00	E۷	5.0000e5		0.5066	478.042	24		0.0618	
3	4.466	2352.50	356.74	٧V	4.9999e5		0.5066	478.042	24		0.0047	
5	4.621	4266.59	757.08	VB	5.0000e5		0.5066	478.042	24		0.0085	
5	4.884	975437.75	219509.44		5.0000e5		0.5066	478.042	24		1.9509	
6	5.065	202240.00	8095.34	E۷	5.0000e5		0.5066	478.042	24		0.4045	
7	6.116	6701.39	906.60	٧٧	5.0000e5		0.5066	478.042	24		0.0134	
8	6.262	7469.28			5.0000e5		0.5066	478.042	24		0.0149	
	6.475	1187431.50	195921.88	W,	5.0000e5		0.5066	478.042	24		2.3749	
10	7.641	5108.00	1048.97	VV	5.0000e5		0.5066	478.042	24		0.0102	
_ 11	7.830	1188302.63	234284.78	VΕ	1778.5000		0.5066	478.042	24	2-FLUOROBIPHENYL	668.1488	
12	8.861	2706.00	347.44	ΕB	4.9999e5		0.5066				0.0054	
13	9.029	1161009.50		ΒV	4.9999e5		0.5066	478.042	24		2.3220	
14	9.963	5259.31					0.5066	478.042	24	Intal Detroloum Hydr	2 0572	
15	10.113	1091060.50			5.0000e5		0.5066	478.042	24	•	2.1821	
16	10.788	2313.61			4.9999e5		0.5066	478.042	24		0.0046	
17	10.996		1002.52				0.5066	478.042	24		0.0078	
18	11.101	953980.13					0.5066	478.042	24	o-Terphenyl	506.4933	
19	11.893	3214.30	767.62	ΒV	5.0000e5		0.5066	478.042	24	•	0.0064	
_20	12.012		215061.88				0.5066	478.042	24		1.5625	
21	12.733	2385.00					0.5066	478.042	24		0.0048	
22	12.851	692749.50	205209.59	ВВ	5.0000e5		0.5066	478.042	24	o-Terphenyl	1.3855	
_		9436474.00	2.08e6			1	11.1450	10516.931	16		1192.1773	

### roup Report For : SURROGATES

Pea #	ak Ret Time f [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
3	7.830 3 11.101		234284.78 BE 257778.72 VB		0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	668.1488 506.4933	
H		2142282.75	492063.50	-	1.0132	217.0518		1174.6421	

END  Chromatogram

Sample Name : 500 PPM

: l:\data\tchrom\pest\hp\_t\T\_\_219.raw FileName

Method : DIESELT.ins

Start Time : 0.50 min

End Time : 28.25 min

Sample #:

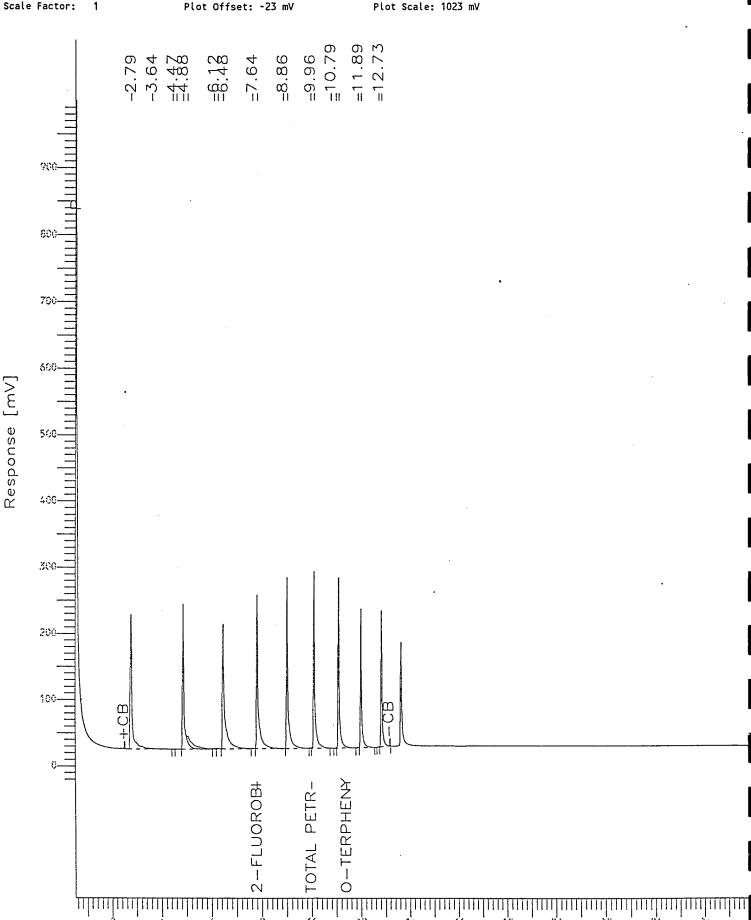
Date: 09/25/95 18:49

Time of Injection: 09/25/95 18:21

Low Point : -22.87 mV High Point : 1000.00 mV

Page 1 of 1

Plot Scale: 1023 mV



Time [min]

\_\_\_\_\_\_\_

Software Version: 3.2 <16C20>

Sample Name : 750 PPM Time : 09/25/95 19:24

Sample Number:

Study : DROW

Operator : SEG

Instrument : HP\_T

Channel: A A/D mV Range: 1000

AutoSampler : HP 7673A Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 09/25/95 18:56

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_220.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_220.rst
Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins
Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

# Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height (uV)	BL	Area/ Amount	RF	VALUE	PPM	Component Name	Raw Amount	
1	2.792	1759545.75	351070 66	RF	5.0000e5		0.5066	784.9421		3.5191	
	3.637	36214.00			4.9999e5		0.5066			0.0724	
2	4.470	3699.25			5.0000e5		0.5066			0.0074	
4	4.618	6707.00			5.0000e5		0.5066	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s		0.0134	
5	4.883	1585585.75			5.0000e5		0.5066			3.1712	
6	5.059	234746.00			5.0000e5		0.5066			0.4695	
7	6.115	8776.25			4.9999e5		0.5066			0.0176	
8	6.257	10807.00			5.0000e5		0.5066			0.0216	
9	6,471	1818237.75			5.0000e5		0.5066			3.6365	
10	7.496	12693.00			5.0000e5		0.5066	784.9421		0.0254	
11	7.636	6115.25			5.0000e5		0.5066	784.9421		0.0122	
12	7.824	1839850.00	445499.59	W	1778.5000		0.5066	784.9421	2-FLUOROBIPHENYL		
13	8.856	2032.75			5.0000e5		0.5066	784.9421		0.0041	
14	9.024	1816230.25	484538.69	W	5.0000e5		0.5066	784.9421		3.6325	
15	9.769	3530.00	548.33	VB	5.0000e5		0.5066			0.0071	
16	9.960	11405.67	3016.92	ΒV	1778.5000		0.5066	784.9421	Total Petroleum Hydr	6.4131	
17	10.109	1758017.63	495921.00	W	5.0000e5		0.5066	784.9421		3.5160	
18	10.791	2503.27	493.65	VB	5.0000e5		0.5066	784.9421		0.0050	
19	10.983	13244.70	2793.49	ΒV	5.0000e5		0.5066	784.9421		0.0265	
20	11.099	1637878.25	514132.91	VB	1883.5000		0.5066	784.9421	o-Terphenyl	869.5929	
21	11.886	10109.20	2236.90	ΒV	5.0000e5		0.5066	784.9421		0.0202	
22	12.008	1517734.75	477946.56	٧B	5.0000e5		0.5066	784.9421		3.0355	
23	12.730	7460.52	2226.07	BB	5.0000e5		0.5066	784.9421		0.0149	
24	12.848	1391497.50	469206.56	88	5.0000e5		0.5066	784.9421		2.7830	
l		15494622.00	4.07e6				12.1582	18838.6094		1934.5123	

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area (uV-sec)	Keight [uV]	BL	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	7.824 11.099	1839850.00 1637878.25			1778.5000 1883.5000			2-FLUOROBIPHENYL o-Terphenyl	1034.4954 869.5929	
<b>.</b>		3477728.25	959632.50	)		1.0132	352.3565		1904.0883	

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_220.TX0

Sample Name: 750 PPM

FileName : l:\data\tchrom\pest\hp\_t\T\_\_\_220.raw

: DIESELT.ins

Scale Factor: 1

Start Time : 0.50 min

End Time : 28.25 min Plot Offset: -22 mV

Sample #: Date: 09/25/95 19:24

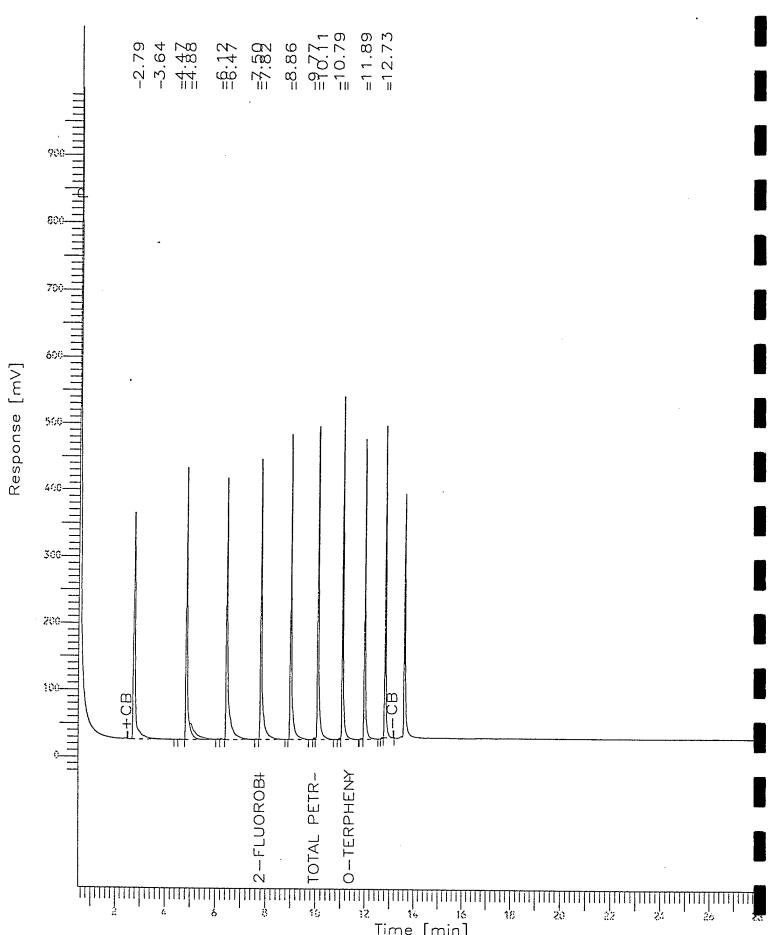
Time of Injection: 09/25/95 18:56

Low Point : -21.98 mV

High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1022 mV



ftware Version: 3.2 <16C2O>

mple Name : 1000 PPM

Study

: 09/25/95 19:59

Sample Number:

perator

: SEG

strument : HP\_T

Channel: A

47 10/0/2/2 Pop. A/D mV Range: 1000

AutoSampler : HP 7673A : 0/0 Rack/Vial

terface Serial # : 4118271220 Data Acquisition Time: 09/25/95 19:31

pelay Time : 0.50 min. End Time : 28.25 min. End Time empling Rate : 1.0000 pts/sec

w Data File : l:\data\tchrom\pest\hp\_t\T\_\_ Result File : l:\data\tchrom\pest\hp\_t\T\_\_221.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins ocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc mple File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

hj. Volume : 1 ul ample Amount : 1.0000

Area Reject

: 100.00

Dilution Factor : 1.00

### Area/Concentration Report

	Ret Time [min]	Area [uV-sec]	Height [uV]	Area/ Amount	RF	VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
#-	2.792	2352879.50		5.0000e5		0.5066			4.7058 0.0838	
2	3.633	41880.00	1230.46	5.0000e5		0.5066			0.0101	
3 4 5	4.468	5032.00		5.0000e5		0.5066			0.0173	
4	4.616	8665.56		5.0000e5		0.5066			4.3331	
<b>5</b>	4.882	2166557.50		5.0000e5					0.5391	
6	5.058	269528.00		5.0000e5		0.5066			0.0313	
_ 7	6.116	15670.50	1673.55	4.9999e5		0.5066			0.0293	
8 9	6.255	14640.59	3133.67	5.0000e5		0.5066			4.8512	
9	6.470	2425601.25		5.0000e5		0.5066			0.0289	
10	7.494	14457.00		5.0000e5		0.5066			0.0156	
11	7.635	7817.64	2081.69	4.9999e5		0.5066		2-FLUOROBIPHENYL	1353.7003	
12 13 14	7.822	2407556.00		1778.5000		0.5066		Z-FEGOROBIF HEMIC	0.0053	
13	8.855	2638.48		5.0000e5		0.5066			4.6542	
	9.023	2327117.00		5.0000e5					0.0079	
15	9.782	3960.06		5.0000e5		0.5066		Total Petroleum Hydr	6.7050	
16	9.958	11924.89		1778.5000		0.5066		Total Feliotean nya.	4.5111	
17	10.108	2255542.00		5.0000e5		0.5066			0.0125	
18	10.614	6251.63		5.0000e5					0.0057	
19	10.790	2836.88		5.0000e5		0.5066			0.0302	
20	10.985	15084.28		5.0000e5		0.5066	1075.2720	o-Torphany!		
21	11.098	2251882.75		1883.5001		0.5066	1073.2720	0- Tel piletty C	0.0239	
22 23	11.890	11942.59		5.0000e5		0.5066	10/3.2920		4.6002	
		2300091.50		5.0000e5		0.5066	1075 2024		0.0180	
24	12.733	8995.53		5.0000e5		0.5066	1075.4740	o-Terphenyl	4.5951	
25	12.850	2297537.00		4.9999e5		0.5066	10/3.2920			
		21226092.00					26882.3203		2589.0989	

## roup Report For : SURROGATES

 ak Ret Time # (min)	Area [uV-sec]	Height [uV]	BL Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
			BV 1778.5000 VB 1883.5001			2-FLUOROBIPHENYL o-Terphenyl	1353.7003 1195.5841	
 	//50/70.00	4 70-4		1 0132	472 0851		2549.2844	

Sample Name: 1000 PPM

FileName : l:\data\tchrom\pest\hp\_t\T\_\_221.raw

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor: 1 End Time : 28.25 min

Sample #: Date: 09/25/95 19:59

.50

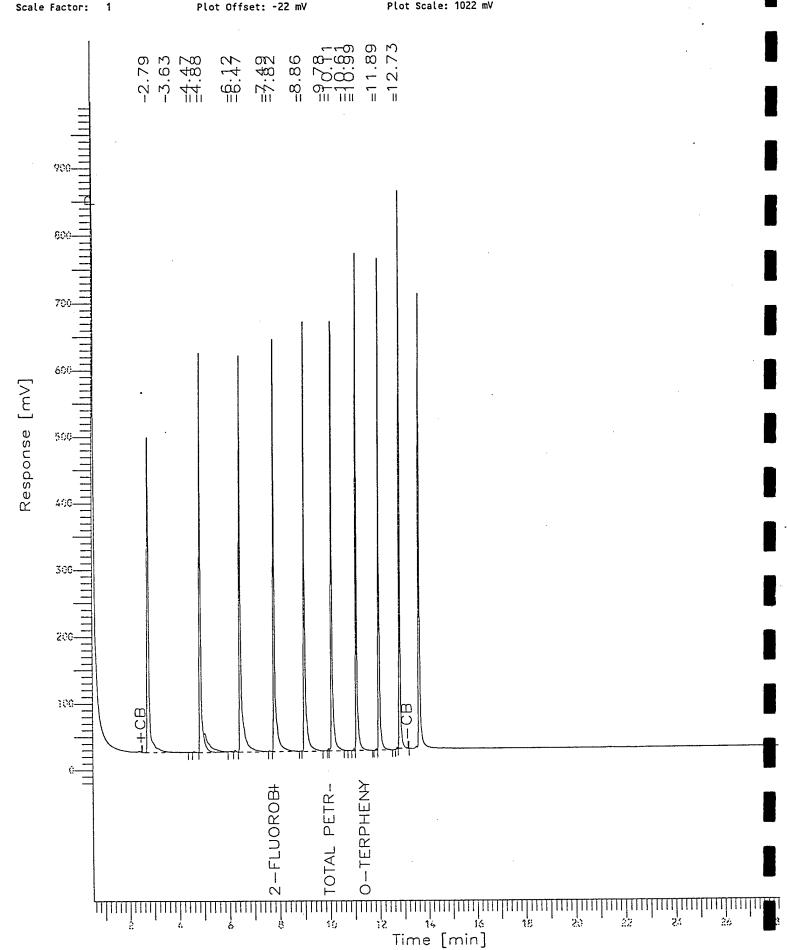
Time of Injection: 09/25/95

mV

19:31 High Point : 1000.00 mV

Page 1 of 1

Low Point : -21.54 mV Plot Scale: 1022 mV



Software Version: 3.2 <16C20>

Sample Name : 750\_PPM Sample Number: TC ;W

Time Study : 09/28/95 16:00

Operator

: SEG

Instrument : HP\_T AutoSampler : HP\_7673A Rack/Vial : 0/0

Channe A/D mV Range: 1000

: DROW

Interface Serial #: 4118271220 Data Acquisition Time: 09/28/95 15:32

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec Ant = 819.16 Rec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_306.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_306.rst
Instrument File: L:\DATA\TCHROM\PEST\METHOOS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

: 100.00 Area Reject Dilution Factor : 1.00

### Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT.	Component Name	Raw Amount
1 2	2.805 3.650	1857716.50 39514.00			5.0000e5		0.5066			3.7154
2	4.488	3866.94			4.9999e5		0.5066			0.0790
4	4.632	6722.59	531.32		5.0000e5		0.5066			0.0077
5	4.894	1967305.88			5.0000e5		0.5066			0.0135
6	6.131	25785.00			5.0000e5		0.5066			3.9346
7	6.270	15516.72			5.0000e5		0.5066			0.0516
8	6.484	1991516.75			5.0000e5		0.5066			0.0310
9	7.502	22747.00			5.0000e5		0.5066	823.3135		3.9830
10	7.651	11048.84	2036.04		5.0000e5		0.5066			0.0455
11	7.837	1963399.75			5.0000e5		0.5066	823.3135	S =111======	0.0221
12	8,869	11247.00	1114.11		1778.5000		0.5066	823.3135	2-FLUOROBIPHENYL	1103.9639
13	9.037	1864872.38			5.0000e5		0.5066	823.3135		0.0225
14	9.760	23213.00	2206.30		5.0000e5		0.5066	823.3135		3.7297
15	9.972	12809.05	3391.34		5.0000e5		0.5066	823.3135		0.0464
. 16	10.122	1793245.25			1778.5000		0.5066	823.3135	Total Petroleum Hydr	7.2022
17	10.787	6903.53			5.0000e5		0.5066	823.3135		3.5865
18	11.016	23410.14	1156.94 5634.78		5.0000e5		0.5066	823.3135		0.0138
19	11.113	1648839.00			4.9999e5		0.5066	823.3135		0.0468
20	11.921	15363.41			1883.5000		0.5066	823.3135	o-Terphenyl	875.4123
21	12.020		3856.19		5.0000e5		0.5066	823.3135		0.0307
22	12.756	1536940.50 6254.92			5.0000e5		0.5066	823.3135		3.0739
23	12.861		2042.56		5.0000e5		0.5066	823.3135		0.0125
	12.001	1403831.00	432085./5	RR	5.0000e5		0.5066	823.3135	••••••	2.8077
ì		16252068.00	3.85e6			1	1.6516	18936.2148		2011.8322

Group Report For : SURROGATES

Peal #	Ret Time [min]	Area [uV-sec]	Height Bl [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
	7.837 11.113	1963399.75 1648839.00	424863.19 BE 465959.88 VE	1778.5000 1883.5000	0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	1103.9639 875.4123	
		3612238.75	890823.06		1.0132	365.9848		1979.3762	

Sample Name : 750\_PPM
FileName : l:\data\tchrom\pest\hp\_t\T\_\_306.raw

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor: 1

End Time : 28.25 min Plot Offset: -23 mV

Sample #: TC ;W Date : 09/28/95 16:00

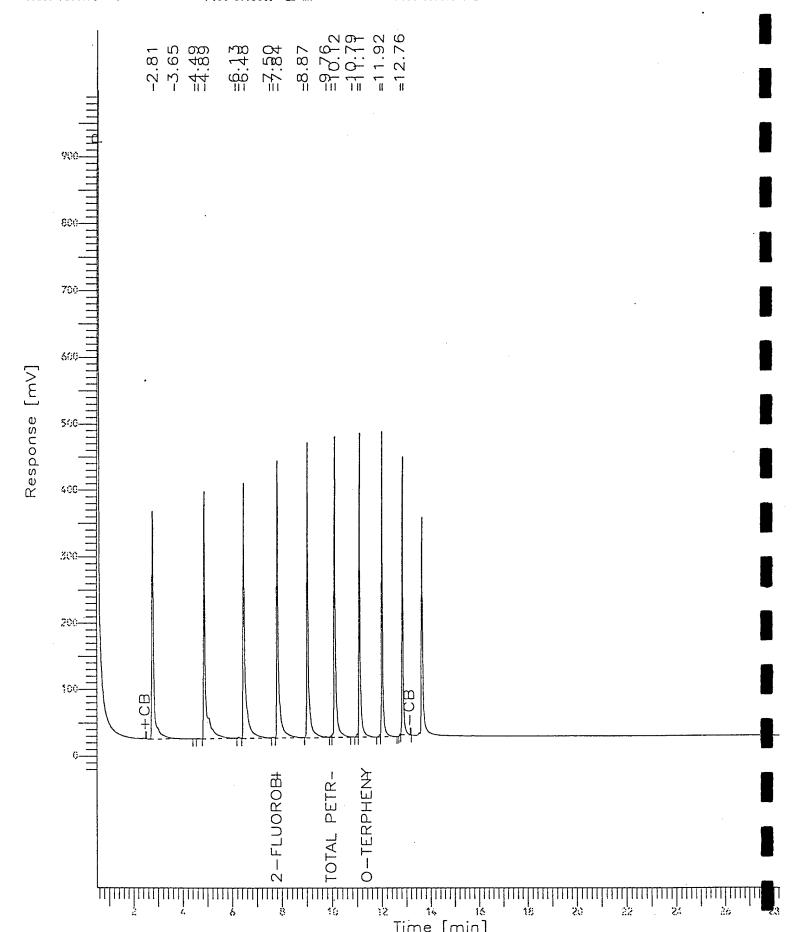
15:32

Time of Injection: 09/28/95 Low Point : -22.91 mV

High Point : 1000.00 mV

Page 1 of 1

Plot Scale: 1023 mV



ftware Version: 3.2 <16C2O>

mple Name: 950926CXB1 Time : DROW

Sample Number: B ;W

Study

: 09/28/95 20:03

erator

strument : HP\_T AutoSampler : HP 7673A

Channel: A

A/D my Range : 1000

Rack/Vial : 0/0

terface Serial # : 4118271220 Data Acquisition Time: 09/28/95 19:35

velay Time : 0.50 min. : 28.25 min. pmpling Rate : 1.0000 pts/sec

W Data File : l:\data\tchrom\pest\hp\_t\T\_\_\_313.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_313.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins ocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
mple File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

nj. Volume : 1 ul mple Amount : 1.0000 hj. Volume

Area Reject

: 100.00

Dilution Factor : 1.00

### Area/Concentration Report

Peak	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	VALUE	DIESEL AMT PPM	. Component Name	Raw Amount	
1	2.688	14780.47	1942.09		5.0000e5	 0.5066	27.5326		0.0296	
ż	2.913	76660.91	8642.29		4.9999e5	0.5066			0.1533	
$-\bar{3}$	3.141	62461.13	9792.15		5.0000e5	0.5066			0.1249	
3 4 5	3.416	85068.72	8788.09		5.0000e5	0.5066			0.1701	
5	3.635	30951.59	4245.96		5.0000e5	0.5066			0.0619	
-6	3.787	12164.33	1898.71		5.0000e5	0.5066	27.5326		0.0243	
7	3.889	29003.38	1756.40	W	5.0000e5	0.5066	27.5326		0.0580	
8 9 10	4,432	13222.25	595.59		5.0000e5	0.5066	27.5326		0.0264	
9	5.114	9083.13	307.24	VB	5.0000e5	0.5066	27.5326		0.0182	
10	6.287	598.00	105.44	BB	5.0000e5	0.5066	27.5326		0.0012	
11	6.583	1405.88	254.75	вν	5.0000e5	0.5066	27.5326		0.0028	
	6.738	2504.13	294.55	VB	5.0000e5	0.5066	27.5326		0.0050	
3	7.298	295.00	32.18	88	5.0000e5	0.5066	27.5326		0.0006	
12 3 14	7.638	79352.63	3169.43	BE	1778.5000	0.5066	27.5326	2-FLUOROBIPHENYL	44.6177	
15	8.477	3852.00	347.88	E۷	5.0000e5	0.5066	27.5326		0.0077	
16	8.588	2722.38	309.00	VB	4.9999e5	0.5066	27.5326		0.0054	
7	9.762	392.50	98.26	вв	1778.5000	0.5066	27.5326	Total Petroleum Hydr	0.2207	
9	11.059	117332.00	23843.62	в٧	1883.5000	0.5066	27.5326	o-Terphenyl	62.2947	
20	12.469	1638.00	52.22	VB	5.0000e5	0.5066	27.5326	· ·	0.0033	
		543488.38	66475.84			 9.6252	523.1191		107.8259	

Group Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.638 11.059	79352.63 117332.00	3169.43 BE 23843.62 VV		0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	44.6177 62.2947	
		196684.63	27013.04		1.0132	19.9277		106.9124	

\_\_\_\_\_\_ \_\_\_\_\_\_\_

eport Stored in ASCII File: L:\data\tchrom\pest\hp\_t\T\_\_313.TXO

Page 1 of 1 Sample Name: 950926CXB1 Sample #: B ;W Date: 09/28/95 20:04 FileName : l:\data\tchrom\pest\hp\_t\T\_\_313.raw Time of Injection: 09/28/95 19:35 Method : DIESELT.ins Low Point : -21.51 mV High Point: 1000.00 mV End Time : 28.25 min Start Time : 0.50 min Scale Factor: 1 Plot Offset: -22 mV Plot Scale: 1022 mV -9.76 -10.48 -11.06 -12.472.69 2.15.14 2.64 1.4.43 1.5.11 \_6:29 \_6:74 \_7:34 =8.48 Response [mV] CB +CB Z-FLUOROBH

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WE CHIEN Software Version: 3.2 <16C2O>

Sample Name : 950926CXLCS Time

Sample Number: TL ;W

: 09/28/95 20:38

Study : DROW

Operator : SEG

Instrument : HP\_T AutoSampler : HP 7673A

Channel: A A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 09/28/95 20:10

Delay Time : 0.50 min. End Time : 28.25 min. pampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_314.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_314.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins rocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc ample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

: 1 ul nj. Volume ample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

### Area/Concentration Report

Peak	Ret Time	Area	Height	BL	Area/	RF	VALUE	DIESEL AMT	•	Raw
	[min]	[uV-sec]	[uV]		Amount			PPM	Name	Amount
<b>—</b> 1	2.805	220522.00	27856.13	B۷	5.0000e5		0.5066	2308.6846		0.4410
2	3.000	76146.16		W	5.0000e5		0.5066	2308.6846		0.1523
3	3.139	93433.94	11030.93	W	5.0000e5		0.5066	2308.6846		0.1869
4	3.321	122905.56	20190.60	W	5.0000e5		0.5066	2308.6846		0.2458
5	3.483	174119.28		V۷	5.0000e5		0.5066	2308.6846		0.3482
6	3.601	95587.33			5.0000e5		0.5066	2308.6846		0.1912
<b>—</b> <sup>7</sup>	3.684	78803.28		W	5.0000e5		0.5066	2308.6846		0.1576
8	3.820	62166.30		W	5.0000e5		0.5066	2308.6846		0.1243
9	3.938	486499.69			5.0000e5		0.5066	2308.6846		0.9730
10	4.120	143890.63			5.0000e5		0.5066	2308.6846		0.2878
11	4.274	95385.17			5.0000e5		0.5066	2308.6846		0.1908
12	4.331	92561.17			5.0000e5		0.5066	2308.6846		0.1851
13 14	4.463	201068.89			5.0000e5		0.5066	2308.6846		0.4021
15	4.558	265582.66			5.0000e5		0.5066	2308.6846		0.5312
16	4.668 4.749	97475.50			5.0000e5		0.5066	2308.6846		0.1950
17	4.886	184373.47	29359.00	VV	5.0000e5		0.5066	2308.6846		0.3688
8	5.081	178923.20	121313.05 32508.57		5.0000e5		0.5066	2308.6846		1.7329
19	5.192	157648.81	34374.00		5.0000e5		0.5066	2308.6846		0.3579
20	5.391	648056.19	75656.13		5.0000e5 4.9999e5		0.5066	2308.6846		0.3153
	5.465	432966.41			5.0000e5		0.5066	2308.6846 2308.6846		1.2961
21 22	5.715	1038663.88			5.0000e5		0.5066	2308.6846		0.8659
<b>4</b> 23	5.816	378304.72			5.0000e5		0.5066	2308.6846		2.0773 0.7566
24	5.929	198601.23	42879.30		5.0000e5		0.5066	2308.6846		0.3972
<b>2</b> 5	6.022	303412.25	75362.35		5.0000e5		0.5066	2308.6846		0.6068
25 26	6.093	363020.25	76921.65	W	5.0000e5		0.5066	2308.6846		0.7260
<b>22</b> 7	6.163	319093.75	88475.66	W	4.9999e5		0.5066	2308.6846		0.6382
28	6.236	655162.94	98796.79	٧V	5.0000e5		0.5066	2308.6846		1.3103
29	6.471	2064291.25	304363.34	W	5.0000e5		0.5066	2308.6846		4.1286
0	6.790	1267656.13	166182.36	W	5.0000e5		0.5066	2308.6846		2.5353
1	6.901	932176.31	176345.86	W	5.0000e5		0.5066	2308.6846		1.8644
32 33	7.049	409770.34	112336.56	W	5.0000e5		0.5066	2308.6846		0.8195
	7.167 7.465	2128392.75	326123.00	W	5.0000e5		0.5066	2308.6846	•	4.2568
5	7.465	1393032.38	174411.69	VV	4.9999e5		0.5066	2308.6846		2.7861
5 5 6	7.621		132553.66		5.0000e5		0.5066	2308.6846		0.9681
37	7.714		154396.41 147546.86		5.0000e5		0.5066	2308.6846		1.6942
_38	7.821	1988692.75	441390.00	V V	5.0000e5 1778.5000		0.5066	2308.6846	3 511100001011011	1.3333
9	7.967	586120 50	122157.85	W	5.0000e5		0.5066	2308.6846 2308.6846	2-FLUOROBIPHENYL	
0	8.045	1262767.50	214435 92	W	4.9999e5		0.5066	2308.6846		1.1722
41	8.167	611136.31	138399.27	w	5.0000e5		0.5066	2308.6846		2.5255
42	8.360	1825083.13	263497.50	w	5.0000e5		0.5066	2308.6846		1.2223
3 4	8.435	2249331.00	369669.63	vv	5.0000e5		0.5066	2308.6846		3.6502 4.4987
4	8.676	1148652.75	180754.89	٧v	4.9999e5		0.5066	2308.6846		2.2973
45	8.786	1145008.88	139110.63	٧٧	4.9999e5		0.5066	2308.6846		2.2900
46	9.017	2620861.50	371680.53	VV	5.0000e5		0.5066	2308.6846		5.2417
<b>4</b> 7	9.164	625041.75	131017.21	W	5.0000e5		0.5066	2308.6846		1.2501
8	9.283	1379321.88	142971.80	W	4.9999e5		0.5066	2308.6846		2.7586
9	9.427	716148.63	135075.88	٧V	5.0000e5		0.5066	2308.6846		1.4323

50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	9.577 9.775 9.901 10.106 10.280 10.399 10.462 10.614 10.783 10.901 11.101 11.312 11.568 11.698 11.833 12.013	902480.13 1427721.63	90462.29 VV 90040.22 VV 151704.83 VV 63646.30 VV 63358.20 VV 95070.27 VV	5.0000e5	0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066	2308.6846 2308.6846 2308.6846 2308.6846 2308.6846 2308.6846 2308.6846 2308.6846 2308.6846 2308.6846 2308.6846 2308.6846 2308.6846 2308.6846	Total Petroleum Hydr	3.5136 1.8050 802.7673 2.6680 0.9215 0.9919 0.8447 2.3923 0.8250 0.8003 2.2885 283.7084 0.5348 0.2899 0.3994 0.1828
		45573036.00	7.31e6		32.9284	1.5006e5		2287.9058

### Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF '	VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.821 11.312	1988692.75 534364.75			1778.5000 1883.5001		0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	1118.1854 283.7084	•
		2523057.50	483411.81			•	1.0132	255.6312		1401.8938	***************************************

END

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_314.TXO

Sample Name : 950926CXLCS

: l:\data\tchrom\pest\hp\_t\T\_\_314.raw

Method : DIESELT.ins Start Time : 0.50 min

icale Factor: 1

End Time : 28.25 min

Plot Offset: -18 mV

Sample #: TL ;W

Date: 09/28/95 20:38

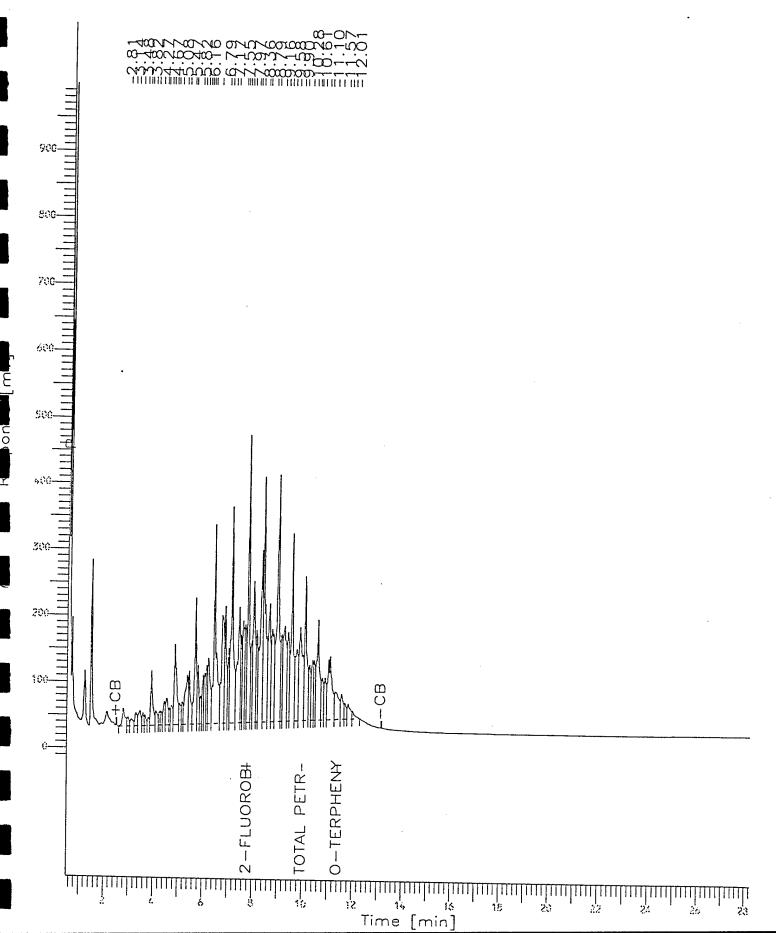
Time of Injection: 09/28/95 20:10

Low Point : -17.65 mV

High Point : 1000.00 mV

Page 1 of 1





Software Version: 3.2 <16C20>

Sample Name : 9509861-01B

Sample Number: SC ;W

Time : 09/26/95 01:13

Study : MODWD

Operator

Instrument : HP\_T AutoSampler : HP 7673A

Channel: A

A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 09/26/95 12:44

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_230.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_230.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

### Area/Concentration Report

01-	0.4 7:	•	W - ! - L &		,		DIFCE! ANT	C	0
reak #	Ret Time [min]	Area [uV-sec]	Height [uV]	RL	Area/ Amount	KF VALUE	DIESEL AMT.	Component Name	Raw Amount
	riici (1)	[04-260]	[uv]	- <b>-</b> -	Allount		rrn 		Amount
1	2.606	145998.00	23093.91	ΒV	5.0000e5	0.5066	99.9643		0.2920
2	2.922	32558.00	5880.99		4.9999e5	0.5066			0.0651
3	3.132	360899.81	98384.88		5.0000e5	0.5066	99.9643		0.7218
4	3.422	121439.88	14943.77		5.0000e5	0.5066	99.9643		0.2429
5	3.583	98385.06	11442.14		4.9999e5	0.5066	99.9643		0.1968
6	3.896	27030.03	5044.01	VV	4.9999e5	0.5066	99.9643		0.0541
7	4.104	12865.16	2195.58		5.0000e5	0.5066	99.9643		0.0257
8	4.307	4507.22	1190.89	₿V	4.9999e5	0.5066	99.9643		0.0090
9	4.473	40967.00	3138.18	W	5.0000e5	0.5066	99.9643		0.0819
10	4.786	89619.00	7050.30		4.9999e5	0.5066	99.9643		0.1792
11	5.095	22156.75	3551.34		4.9999e5	0.5066	99.9643	•	0.0443
12	5.238	10054.13	2543.47		4.9999e5	0.5066	99.9643		0.0201
13	5.487	91417.44	5013.68		5.0000e5	0.5066	99.9643		0.1828
14	5.735	14632.47	3279.62		5.0000e5	0.5066	99.9643		0.0293
15	5.846	52406.06	10930.55		5.0000e5	0.5066	99.9643		0.1048
16	6.246	124369.13	7437.82		5.0000e5	0.5066	99.9643		0.2487
17	6,463	25182.53	4239.38		4.9999e5	0.5066	99.9643		0.0504
18	6.569	16041.36	3059.69		5.0000e5	0.5066	99.9643		0.0321
19 20	6.684 6.835	16183.31 15306.13	2793.55 2292.71		5.0000e5 5.0000e5	0.5066 0.5066	99.9643 99.9643		0.0324 0.0306
21	6.913	24189.63	2674.52		5.0000e5	0.5066	99.9643		0.0484
22	7.138	37157.94	3570.33		5.0000e5	0.5066	99.9643		0.0743
23	7.338	13578.31	2234.62		5.0000e5	0.5066	99.9643		0.0272
24	7.501		11529.51		5.0000e5	0.5066	99.9643		0.1885
25	7.744	15732.98	3037.25		4.9999e5	0.5066	99.9643		0.0315
26	7.877	22499.31	2994.66		1778.5001	0.5066	99.9643	2-FLUOROBIPHENYL	12.6507
27	8.015	14444.66	2306.15	W	5.0000e5	0.5066	99.9643		0.0289
28	8.269	29228.25	2256.50		5.0000e5	0.5066	99.9643		0.0585
29	8.441	74644.13	5909.71	٧V	5.0000e5	0.5066	99.9643		0.1493
30	8.787	86655.31	8532.81	VV	5.0000e5	0.5066	99.9643		0.1733
31	9.098	9037.52	2456.96		4.9999e5	0.5066			0.0181
32	9.211	20952.13	2643.14		5.0000e5	0.5066	99.9643		0.0419
33	9.508	42942.44	3066.56		5.0000e5	0.5066	99.9643		0.0859
34	9.756	13908.13	1891.37		4.9999e5	0.5066			0.0278
35	9.991	3179.52	754.22		1778.5000	0.5066		Total Petroleum Hydr	1.7878
36	10.070	4285.09	699.25		5.0000e5	0.5066			0.0086
37 38	10.296 10.444	1540.78 902.11	421.81		5.0000e5 5.0000e5	0.5066 0.5066	99.9643 99.9643		0.0031 0.0018
39	10.444	4743.38	216.00 851.82		5.0000e5	0.5066			0.0018
40	10.883	14143.44	4063.71		5.0000e5	0.5066			0.0283
41	11.049		21930.76		5.0000e5	0.5066			0.1234
42	11.152	6021.00	2282.56	E۷	5.0000e5	0.5066			0.0120
43	11.300	1847.06	700.75		5.0000e5	0.5066			0.0037
44	11.380	805.56	325.00		1883.5000	0.5066		o-Terphenyl	0.4277
45	11.547	2872.72	541.93		5.0000e5	0.5066		· - · • · · · · · · ·	0.0058
46	11.684	3096.44	423.81		5.0000e5	0.5066			0.0062
47	11.835	3496.91	718.06		5.0000e5	0.5066			0.0070
48	11.951	5396.98	1616.73	W	5.0000e5	0.5066	99.9643		0.0108
49	12.017	4274.97	1124.88	٧E	5.0000e5	0.5066	99.9643		0.0086

<b>5</b> 0	12.168	1013.00	273.13 EB	5.0000e5	0.5066	99.9643	0.0020
51	12.262	899.47	259.46 BV	5.0000e5	0.5066	99.9643	0.0018
52	12.325	1004.16	329.31 VV	4.9999e5	0.5066	99.9643	0.0020
53	12.393	526.39	187.09 VB	5.0000e5	0.5066	99.9643	0.0011
54	12.534	9487.78	3236.98 BV	4.9999e5	0.5066	99.9643	0.0190
55	12.667	12561.13	2976.20 VV	5.0000e5	0.5066	99.9643	0.0251
56	12.794	1101.48	452.33 VV	5.0000e5	0.5066	99.9643	0.0022
57	12.870	1463.13	565.07 VV	5.0000e5	0.5066	99.9643	0.0029
58	13.022	4253.28	642.10 VV	5.0000e5	0.5066	99.9643	0.0085
59	13.078	1425.69	536.56 VB	5.0000e5	0.5066	99.9643	0.0029
		1973278.75	318740.03		29.8888	5897.8965	18.7598

roup Report For : SURROGATES

_	Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount		DIESEL AMT. PPM	Component Name	Raw Amount	
	1 3	7.877 11.380	22499.31 805.56	2994.66 BV 325.00 BB	1778.5001	0.5066	1.1806	2-FLUOROBIPHENYL o-Terphenyl	12.6507 0.4277	
_			23304.88	3319.66		1.0132	2.3612		13.0784	

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_230.TX0

191.33 (20/00) (0.306)

Sample Name: 9509861-018

: l:\data\tchrom\pest\hp\_t\T\_\_230.raw FileName

: DIESELT.ins Method

Start Time : 0.50 min Scale Factor: 1

End Time : 28.25 min

Sample #: SC ;W Date : 09/26/95 01:13

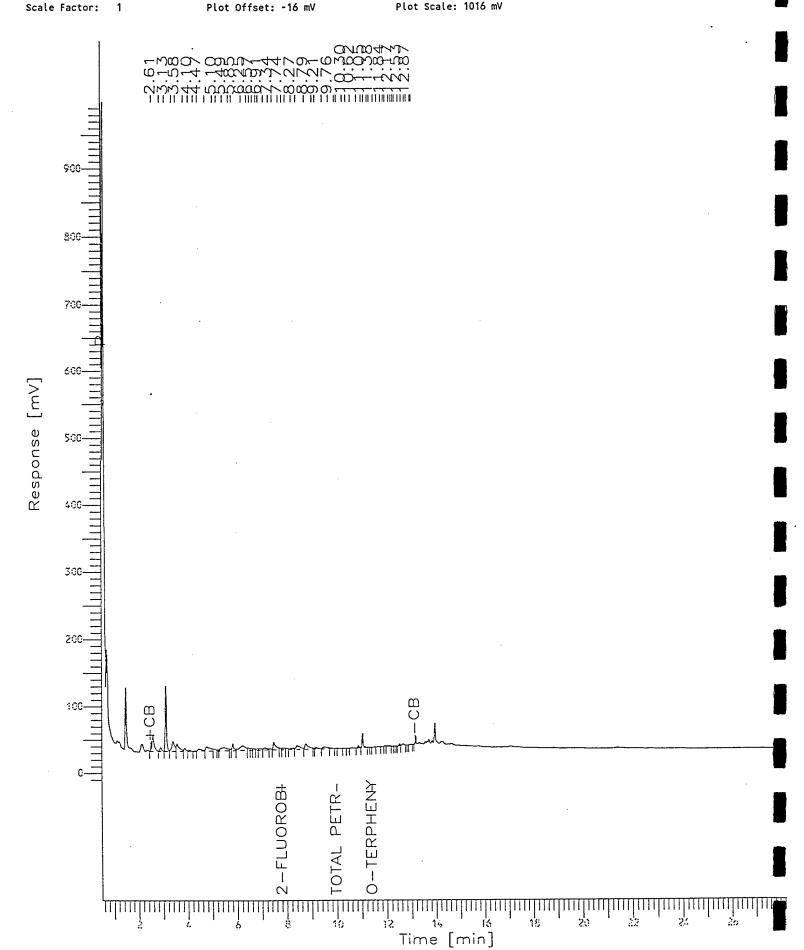
12:44 Time of Injection: 09/26/95

Low Point : -16.25 mV

High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1016 mV



Software Version: 3.2 <16C2O>

Sample Name : 9509861-01BMS

Sample Number: KM ;W

Time Study : 09/26/95 01:48 : MODWD

Operator

Rack/Vial

: SEG

Instrument : HP\_T AutoSampler : HP 7673A : 0/0

A/D mV Range : 1000 Channel: A

Interface Serial # : 4118271220 Data Acquisition Time: 09/26/95 01:19

Delay Time : 0.50 min. End Time : 28.25 min. End Time Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_231.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_231.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul ample Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

### Area/Concentration Report

					Mich Concent	nation weboit			
	Ret Time	Area	Height	BL	Area/	RF VALUE	DIESEL AMT	. Component	Raw
#	(min)	[uV-sec]	[uV]		Amount		PPM	Name	Amount
					·				AHOUIL
1	2.612	69023.06	9697.31	ΒV	4.9999e5	0.5066	323.5975		0.1381
2	2.819	14933.88		٧V	5.0000e5	0.5066			0.0299
3	2.924	19894.09	3258.43	٧٧	5.0000e5	0.5066	323.5975		
4	3.133	200191.72	51989.95	W	5.0000e5	0.5066	323.5975		0.0398
5	3.324	28484.78	6816.69	٧V	5.0000e5	0.5066	323.5975		0.4004
<del>-</del> 6	3.423	67900.47			4.9999e5	0.5066	323.5975		0.0570
7	3.584	72569.59	14190.44		5.0000e5	0.5066	323.5975		0.1358
8	3.685	37305.83	7946.68		5.0000e5	0.5066	323.5975		0.1451
9	3.815	16565.27	3871.08		5.0000e5	0.5066	323.5975		0.0746
10	3.953	52228.56	6584.52		5.0000e5	0.5066	323.5975		0.0331
11	4.111	28372.94	5427.19		5.0000e5	0.5066	323.5975		0.1045
12	4.330	43045.53	5480.95		5.0000e5	0.5066			0.0568
13	4.468	39443.47	6711.65		4.9999e5	0.5066	323.5975		0.0861
14	4.578	38882.59	7336.08		5.0000e5	0.5066	323.5975		0.0789
15	4.668	20043.34	5649.20		5.0000e5	0.5066	323.5975		0.0778
16	4.771	79082.78	9418.75		5.0000e5	0.5066	323.5975		0.0401
7	4.944	57023.52	9324.95		5.0000e5		323.5975		0.1582
8	5.014	27942.44	7947.02		5.0000e5	0.5066	323.5975		0.1141
9	5.094	38177.84	6619.14		5.0000e5	0.5066	323.5975		0.0559
20	5.200	38253.45	6990.57			0.5066	323.5975		0.0764
21	5.380	93638.25	12445.12		5.0000e5	0.5066	323.5975		0.0765
2	5.478	99386.84	15195.98 \		5.0000e5	0.5066	323.5975		0.1873
2	5.689	145263.19	19670.84 \		5.0000e5	0.5066	323.5975		0.1988
24	5.833	83873.56	17419.66 \		5.0000e5	0.5066	323.5975		0.2905
	5.929	26008.75	7149.81 \		5.0000e5	0.5066	323.5975		0.1678
25 6 7	6.031	69188.30	15929.50 \	rv nu	5.0000e5	0.5066	323.5975		0.0520
7	6.167	128619.97	17961.39 \	/ V	5.0000e5	0.5066	323.5975		0.1384
28	6.264	91988.69	14734.94		5.0000e5	0.5066	323.5975		0.2572
29	6.402	55533.13	12604.04 V		5.0000e5	0.5066	323.5975		0.1840
	6.482	265561.81	35920.38 V		5.0000e5	0.5066	323.5975		0.1111
0	6.787	165829.31	32978.47 V		5.0000e5	0.5066	323.5975		0.5311
2	6.912	216879.94	42031.57 V		5.0000e5	0.5066	323.5975		0.3317
33	7.114	220133.97			5.0000e5	0.5066	323.5975		0.4338
_34	7.200	153716.56	32115.13 V 23439.67 V	"	5.0000e5	0.5066	323.5975		0.4403
5	7.382	56661.14	23437.07 V	/ V	5.0000e5	0.5066	323.5975		0.3074
5 6	7.476	173955.66	13124.11 V	IV.	5.0000e5	0.5066	323.5975		0.1133
37	7.669	295007.88	29246.45 V		5.0000e5	0.5066	323.5975		0.3479
38	7.840	312123.72	32641.34 V		4.9999e5	0.5066	323.5975		0.5900
9	7.979	69763.86	53315.30 V	٧.	1778.5000	0.5066	323.5975	2-FLUOROBIPHENYL	175.4983
ń	8.049	149811.19	18208.59 V		4.9999e5	0.5066	323.5975		0.1395
0 1	8.167		23494.44 V		4.9999e5	0.5066	323.5975		0.2996
42	8.363	74305.56	17739.47 V		5.0000e5	0.5066	323.5975		0.1486
<u> </u>	8.510	301389.06	24840.61 V		5.0000e5	0.5066	323.5975		0.6028
3 4 5	8.680	199254.09	31967.17 V		5.0000e5	0.5066	323.5975		0.3985
Ę		144729.14	26888.60 V	V	5.0000e5	0.5066	323.5975		0.2895
46	8.802 9.031	174515.16	21193.79 V	V	5.0000e5	0.5066	323.5975		0.3490
46 47		242026.03	24451.85 V	V	5.0000e5	0.5066	323.5975		0.4841
	9.171	96742.08	16582.88 V		5.0000e5	0.5066	323.5975		0.1935
В 9	9.293	144643.66	22982.87 V		5.0000e5	0.5066	323.5975		0.2893
	9.420	69319.13	12870.07 V	٧	5.0000e5	0.5066	323.5975		0.1386

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ ·	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	7.840 11.324	312123.72 52539.25	53315.30 BV 4865.38 VV				2-FLUOROBIPHENYL o-Terphenyl	175.4983 27.8945	
		364662.97	58180.68		1.0132	36.9469		203.3928	

END

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_231.TX0

Sample Name : 9509861-01BMS

FileName : l:\data\tchrom\pest\hp\_t\T\_\_231.raw

: DIESELT.ins

Start Time : 0.50 min

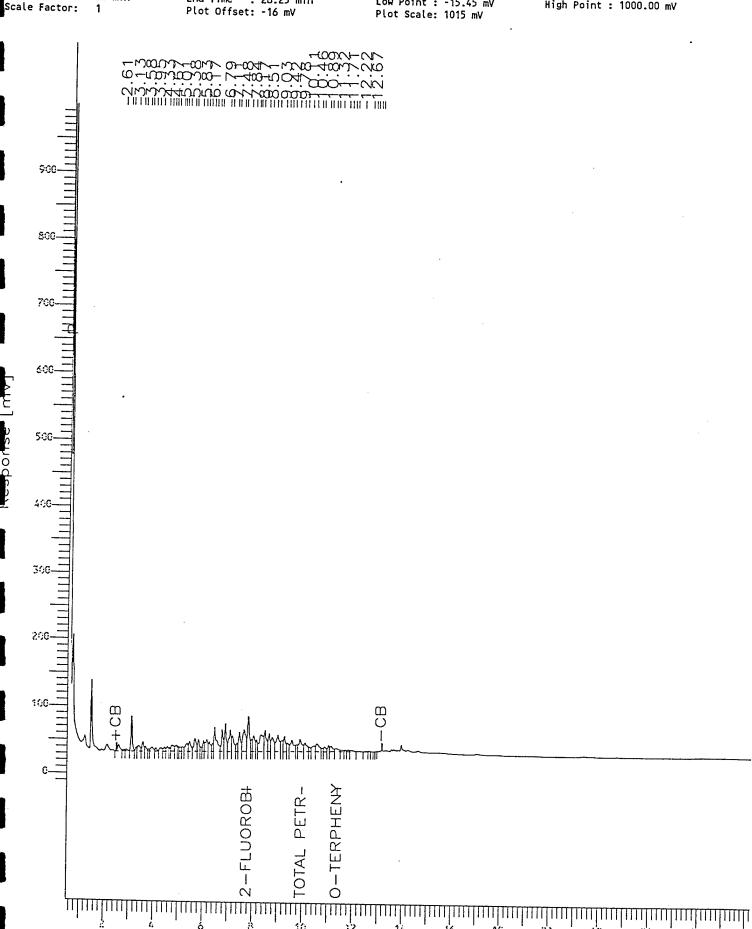
End Time : 28.25 min

Page 1 of 1

Sample #: KM ;W Date: 09/26/95 01:48

Time of Injection: 09/26/95 01:19 Low Point : -15.45 mV

High Point: 1000.00 mV



:5

Time [min]

18

SS

Software Version: 3.2 <16C20>

Sample Name : 9509861-01BMSD

Sample Number: KMD;W

: 09/26/95 02:22 Time

Study : MODWD

Operator : SEG

Instrument : HP\_T AutoSampler : HP\_7673A

A/D mV Range: 1000 Channel : A

: 0/0 Rack/Vial

Interface Serial #: 4118271220 Data Acquisition Time: 09/26/95 01:54

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_232.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_232.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\D1ESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sample File Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

### Area/Concentration Report

			•	A	rea/ Concenti	ration Kehort			
Peak #	Ret Time [min]	Area [uV-sec]	Height E [uV]	BL.	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount
		E4/17 40	7713.59 E	·	5.0000e5	0.5066	249.0281		0.1128
1	2.614	56417.69			5.0000e5	0.5066			0.0721
2	2.922	36044.88	3979.92 \		5.0000e5	0.5066			0.3601
3	3.134		46524.89 \			0.5066			0.0640
4	3.325	31992.06	6432.46		5.0000e5	0.5066			0.1028
5	3.424	51418.00	7254.96 \		5.0000e5	0.5066			0.1242
6	3.585	62106.72	12304.06		5.0000e5	0.5066			0.0645
7	3.686	32236.17	6802.83 \		5.0000e5	0.5066			0.0277
8	3.816	13823.42	3243.92		5.0000e5	0.5066			0.0796
9	3.955	39786.41	4881.01		5.0000e5	0.5066			0.0397
10	4.111	19829.56	4320.41		5.0000e5	0.5066			0.0644
11	4.332	32221.81	4280.78		5.0000e5	0.5066			0.0571
- 12	4.468	28537.94	4964.89		5.0000e5	0.5066			0.0560
13	4.580	28015.73	5489.77		5.0000e5	0.5066			0.0291
14	4.668	14568.63	4181.40		5.0000e5	0.5066			0.1407
15	4.771	70368.09	7070.52		4.9999e5	0.5066			0.0573
16	4.946	28648.69	6614.17		5.0000e5	0.5066			0.0412
17	5.015	20608.67	5947.13		5.0000e5	0.5066			0.0568
18	5.102	28407.89	4910.25		5.0000e5	0.5066			0.0653
19	5.201	32637.58	5294.58		5.0000e5	0.5066	249.0281		0.1311
20	5.379	65567.34	9461.72		5.0000e5	0.5066			0.1511
21	5.480	75549.84	11966.49		5.0000e5	0.5066			0.2238
22	5.689	111898.06	16146.59		5.0000e5 4.9999e5	0.5066			0.1332
23	5.835	66583.41	14308.91		4.9999e5	0.5066	249.0281		0.0372
24	5.929	18602.44	5149.18		5.0000e5	0.5066			0.1073
25	6.032	53667.53	12699.99 11018.50			0.5066			0.0843
26	6.094	42147.94	14130.52		4.9999e5	0.5066			0.1320
27	6.167	65976.28 59969.53	11123.45		5.0000e5	0.5066			0.1199
28	6.265 6.403	43026.39	9946.64		5.0000e5	0.5066			0.0861
29	6.483	207261.38	28451.20		5.0000e5				0.4145
30 31	6.788	130704.56	26929.64		4.9999e5	0.5066			0.2614
32	6.913	177788.31	34668.25	w	5.0000e5				0.3556
33	7.115	179197.25	27196.35		5.0000e5		249.0281		0.3584
34	7.204	117107.50	17944.82		5.0000e5		249.0281		0.2342
35	7.383	41878.34	9927.89		5.0000e5				0.0838
36	7.478	136053.66			5.0000e5				0.2721
37	7.672	240584.97			5.0000e5				0.4812
38		254369.03			1778.5000		5 249.0281	2-FLUOROBIPHENYL	143.0245
39		55078.56			5.0000e5		5 249.0281		0.1102
40		114613.72			5.0000e5		5 249.0281		0.2292
41		55813.36			5.0000e5				0.1116
42		208291.81			5.0000e5		6 249.0281		0.4166
43		174301.66			5.0000e5				0.3486
44		113684.83			5.0000e5				0.2274
45		163286.25			5.0000e5	0.506			0.3266
46		142842.56			5.0000e5	0.506	6 249.0281		0.2857
47		86614.30			5.0000e5	0.506	6 249.0281		0.1732
48		99782.25			5.0000e5	0.506	6 249.0281	•	0.1996
49		49178.45		W	5.0000e5	0.506	6 249.0281		0.0984

<b>-</b> 0	9.594	112828.16	11438.50 VV	5.0000e5	0.5066	249.0281		0.2257
1	9.782	42253.97	7529.51 VV	5.0000e5	0.5066	249.0281		0.0845
<b>2</b> 2	9.914	131029.69	14515.49 VV	1778.5000	0.5066	249.0281	Total Petroleum Hydr	73.6743
53	10.112	78221.38	8849.54 VV	5.0000e5	0.5066	249.0281		0.1564
	10.280	23360.38	4762.72 VV	5.0000e5	0.5066	249.0281		0.0467
<b>3</b> 5	10.463	51766.97	6179.31 VV	5.0000e5	0.5066	249.0281		0.1035
54 5 6	10.571	85014.03	9216.27 VV	5.0000e5	0.5066	249.0281		0.1700
37	10.785	15735.95	3404.32 VV	4.9999e5	0.5066	249.0281		0.0315
58	10.891	35479.56	5490.20 VV	4.9999e5	0.5066	249.0281		0.0710
<b>11</b> 9	11.050	29229.69	7503.92 VV	5.0000e5	0.5066	249.0281		0.0585
9 0 1	11.159	49395.22	6350.49 VV	5.0000e5	0.5066	249.0281		0.0988
<b>49</b> 1	11.362	40472.56	3501.78 VV	1883.5000	0.5066	249.0281	o-Terphenyl	21.4880
62	11.569	11070.00	1675.39 VV	5.0000e5	0.5066	249.0281		0.0221
<u> 43</u>	11.713	7518.27	1481.77 VV	5.0000e5	0.5066	249.0281		0.0150
4 5	11.842	12505.41	2120.75 VV	5.0000e5	0.5066	249.0281		0.0250
<b>5</b>	11.947	14680.19	1730.32 VV	5.0000e5	0.5066	249.0281		0.0294
66	12.219	3274.50	476.32 VV	5.0000e5	0.5066	249.0281		0.0066
67	12.394	328.91	142.15 VB	5.0000e5	0.5066	249.0281		0.0007
8	12.536	4658.00	1121.69 BV	5.0000e5	0.5066	249.0281		0.0093
8 9	12.668	3171.00	772.96 VV	5.0000e5	0.5066	249.0281		0.0063
<b>7</b> 0	12.764	1824.00	545.59 VB	5.0000e5	0.5066	249.0281		0.0037
71	12.878	576.47	182.07 BV	5.0000e5	0.5066	249.0281		0.0012
-72	12.968	991.91	309.08 VV	5.0000e5	0.5066	249.0281		0.0020
72 3	13.089	1269.13	169.02 VB	5.0000e5	0.5066	249.0281		0.0025
<b></b> -								

4915771.00 792683.13

36.9811 18179.0488

247.1665

### oup Report For : SURROGATES

Peal	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.843 11.362						2-FLUOROBIPHENYL o-Terphenyl	143.0245 21.4880	
Ĭ		294841.59	46686.55		1.0132	29.8728		164.5124	

BND

Peport Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_232.TX0

Sample Name: 9509861-01BMSD

FileName : l:\data\tchrom\pest\hp\_t\T\_\_232.raw

: DIESELT.ins Method

Start Time : 0.50 min Scale Factor: 1

End Time : 28.25 min Plot Offset: -16 mV

Sample #: KMD;W

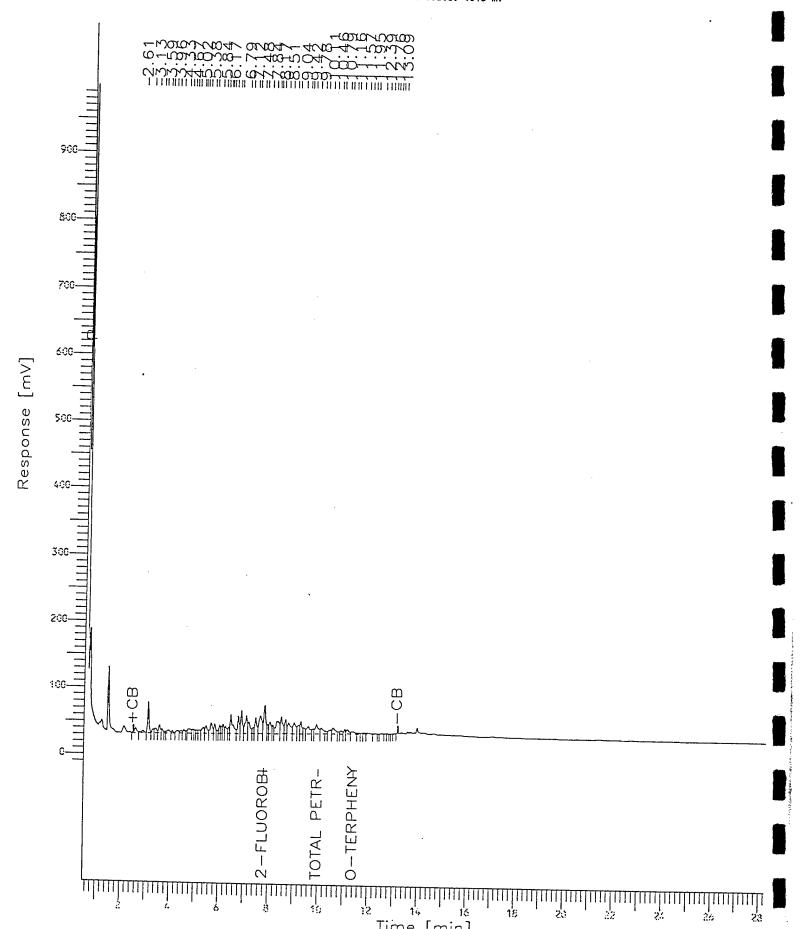
Date: 09/26/95 02:23

Time of Injection: 09/26/95 01:54

Low Point : -16.20 mV Plot Scale: 1016 mV

High Point: 1000.00 mV

Page 1 of 1





8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

SPL QUALITY CONTROL REPORT \*\*

Matrix: Aqueous Reported on: 09/29/95 Analyzed on: 09/29/95

Analyst:

JM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Lead, Total METHOD 6010 \*\*\*

SPL Sample ID Number	Blank Value mg/L	Amt Added mg/L	Matrix Spike Recovery	Matrix Spike Duplicate Recovery %	Relative Percent Difference	QC Limits Recovery	RPD Max.
9509863-01D	ND	1.000	83.4	84.3	1.1	80 - 120	20

-9509382

Samples in batch:

9509863-01D

9509863-02D

9509863-03D

9509863-04D

9509901-118

COMMENTS:

incorporated heres



HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

### SPL QUALITY CONTROL REPORT \*\*

Matrix:

Aqueous

Reported on:

09/29/95

Analyzed on:

09/29/95

Analyst:

JΜ

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

> Lead, Total METHOD 6010 \*\*\*

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	2.000	1.883	94.2	80 - 20

-9509383

### Samples in batch:

9509863-01D 9509901-11B 9509863-02D

9509863-03D

9509863-04D

COMMENTS:

LCS=SPL ID#: 94-452-14-23

94-452-15-1

94-452-15-2

QC Officer

## CHAIN OF CUSTODY AND SAMPLE RECEIPT CHECKLIST

AIR B, LL # : 354 1000 43697 480 5205 M 9509863V ABB

Environmental Laboratory 8880 Interchange Drive Houston, Texas 77054 713/660-0901

Analysis Request and Chain of Custody Record

,		i		060-000/01/	200				
Project No.		ਹ	Client/Project Name				Project Location		
1315-193	5,3	***	pp Optech	h / Maneapolis	toolis		MINNEAPOLIS AN 6B	68	
Field Sample No./ Identification	Date and Time	dsia qmoO	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preser- vative		ANALYSIS REQUESTED	LABORATORY REMARKS	RY
1 h-MW	26-17-6		1.R. ter PLASTIC	WATER	HNOY	Lead - S	0109 mS		
b dhq-h-MW	9-2-95		"	11	١,	"	, ,		
651-002MW 1	1300		11	1 (	11	11	11		
9. AWM100-129	1-21-95		1/	11	77	)/			
\	/		_		-/				
			)						
7	/		/	)	,				
Samplers: (Signature)	Signature)		Relinquished by:	*		Date: 9-11-95	Received by:	Date: 9-2/-55 Intact	
Hand &	<b>.</b>		Jan Jan	X		Time: /752		Time: 1752 Yes	
X.X	展		Relinquished by: (Signature)			Date:	Received by (Signature)	Date: Intact	
Affiliation	ntion	.				Time:		Time:	
OPTECH			Relinquished by: (Signature)			Date:	Received by: (Signature)	Date: Antact	Ą
OPTECH							000		
REMAP	MPS 989	6	9489 756				(Signardie)	Date 9-26 Laboratory No. Time: (0:00)	
Seal #							Data Results to:		

199988

Page

Environmental Laboratory 8880 Interchange Drive Houston, Texas 77054 713/660-0901

# Analysis Request and Chain of Custody Record

				2000					
Project No.		Sign	Client/Project Name		^				
1315-1	193	9	OPTECH	/ MINNEA	APOLIS	5	MINNEAPOLIS Al	ANGB	
Field Sample No./ Identification	Date and Time	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid, Siudge, Etc.)	Preser- vative		ANALYSIS REQUESTED	LABORATORY REMARKS	
+	9-17-65		3-104	WATER	HCR	ms 701	ohz8-ms		
Jng-5-MW	1430		3-10A	warek	400	TPH-GRO WDNR	WDNR		
MW-4-04P	9-21-95		1- Peter	water	HCE	TPH-DRO	WONE		
	3-21-95		3-104	WATER	HC6	VOC SW-	SW-8240		
カ-AW	1410		3-VOA	WATER	HCE	TPH - 6RO	WDNR		
MW-4	1410		1- Wite	WATER	1400	7	WONR		
6 1 mm 200/0/	9-21-15		3-10A	WATER	1400	10c 5W-	5w-8240		
	/300		3-VOA	WATER	1406	TPH-6RO	WONR		
651-002 MW	1300		1-lete	water	20#	TPH-BRO	WANK		
651- 8	. 27-85		3-10A	WASHI	#ce.	8-105 201	052d		
(MNA	1/30		3-104	walk	40	M	- GRO WDNR		
651- 00/MWA	1130		1-1 ata	walm	Hee	TPH- DEO WDNR	WDNR		
TR1891AN	9-13-95 UKS		3-DOM	water	1188	VOC-)54J-8240	0458-1		
878	928		36	HB	B	200	(		
Samplers:	Samplers: (Signature)		Relinquished by:			Date: 9-21 -55	Received by	Date: 9-2/-55 Intact	
May 14.	7		1 Signature)	. Str		Time: /752	(Signature) AN V	Time: /752 Yes	
N. W.			Relinquished by: (Signature)	1		Date:	Received by (Signature)	Date: Intact	
Affili	Affiliation					Time:		Time:	
422100	H.		Relinquished by: (Signature)			Date:	Received by: (Signature)	Date: (Intract)	
DITECH	x					Time:	100	Time: 7 / 7 9	
SAMPLER REMARKS:	ÿ						Receive of Jacobs (Signature)	Date: 7/24/16 Laboratory No. Time: 10:00	
Seal #				-			Data Results to:		

### SPL Houston Environmental Laboratory Sample Login Checklist

Dat	te: 9-22-95 Time:	10:00			1
SPI	L Sample ID:				
	950986.	3		·	
				Yes	<u>No</u>
1	Chain-of-Custody (COC) form is pres	sent.			
2	COC is properly completed.				
3	If no, Non-Conformance Worksheet	has been complete	ed.		
4	Custody seals are present on the ship	ping container.			
5	If yes, custody seals are intact.				i
6	All samples are tagged or labeled.				
7	If no, Non-Conformance Worksheet	has been complete	ed		
8	Sample containers arrived intact				
9	Temperature of samples upon arrival:		-		34
10	Method of sample delivery to SPL:	SPL Delivery	• · · · · · · · · · · · · · · · · · · ·		;
		Client Delivery		, , , , , , , , , , , , , , , , , , , ,	
		FedEx Delivery (ai	irbill #)	664291	1247.6
!		Other:		44,000	
11	Method of sample disposal:	SPL Disposal			
		HOLD			
		Return to Client			
<u> </u>		1		L	
Nar	me:  Data Brown	D	Pate: 9-2	2-95	-



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 95 - 09 - 929

Approved for release by:

M. Scott Sample, Laboratory Director

Date: 10/12/95

Lan clayed Date: 19/12/95

Karen Satterfield Project Manager



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

### Certificate of Analysis No. H9-9509929-01

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

DATE: 10/12/9

PROJECT: Optech/Minneapolis

SITE: Minneapolis ANGB

SAMPLED BY: OPTEC

SAMPLE ID: 651-001MWB

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/22/95 10:00:0

DATE RECEIVED: 09/23/95

	ANALYTICAL DATA		
PARAMETER	RESULI	IS DETECT LIMIT	ION UNIT
GC/FID Gasoline-Purgeables WI LUFT GRO	2	29	mg/i
Analyzed by: JZL Date: 09/28/95 22:00	5:00		ĺ
GC/FID Diesel-Extractables WI LUFT DRO	3.9	0.1	mg/I
Analyzed by: SEG Date: 09/28/95 16:07	7:00		:
Liquid-liquid extraction METHOD 3510 ***	09/26/9	)5	
Analyzed by: DB Date: 09/26/95 15:00	):00		ļ
Acid Digestion-Aqueous, ICP METHOD 3010 *** Analyzed by: AM Date: 09/29/95	09/29/9	95	
Lead, Total METHOD 6010 *** Analyzed by: JM	N	ID 0.1	mg/l
Date: 10/02/95			

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Certificate of Analysis No. H9-9509929-01

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

10/12/95

PROJECT: Optech/Minneapolis

SITE: Minneapolis ANGB

SAMPLED BY: OPTEC

SAMPLE ID: 651-001MWB

PROJECT NO: 1315-193

MATRIX: WATER

DATE SAMPLED: 09/22/95 10:00:00

DATE RECEIVED: 09/23/95

ANALYTICAL	DATA		
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	14	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	$\mathtt{ND}$	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	<b>5</b>	ug/L
1,1-Dichloroethene	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	180	50	ug/L
2-Hexanone	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	$\mathbf{N}\mathbf{D}$	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	860	50	ug/L

METHOD: 8240, Volatile Organics - Water (continued on next page)



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

### Certificate of Analysis No. H9-9509929-01

Operational Tech

SAMPLE ID: 651-001MWB

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	102	76	114
Toluene-d8	50 ug/L	100	88	110
4-Bromofluorobenzene	50 ug/L	112	86	115

ANALYZED BY: JC DATE/TIME: 09/26/95 12:56:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

**COMMENTS:** 

US = 9510004 9510011 950005





PLASMA 400 Analysis Ver. 4.10 Mon 10/02/95 - 09:28:46

Method File Name: Mix5

Remarks: Routine Analysis

Replicates:3

Read Delay: 60

Data File: 1002A

0939 10/02/95

Internal Standard element is Y

ID/Wt file is TAB1

STANDARD #1		REPLICATE	#1	0931 10/02/95
p(teb) Y	EM			

REPLICATE #2 STANDARD # 1

> ; **~** . 11. EM 10677

# 3 REPLICATE  $O(3) \times O(3) \times O(3)$ # 1

						0.6 CONC	
						0.4 CONC	5.000
Y	ΑV	10656.7	SD	17.7	CV	0.2	

0935 10/02/95 REPLICATE #1 BLANK

- 4 C: E.M pb5 33 EΜ ΕM 10627 Υ

REPLICATE #2 BLANK

- 4 CrEΜ 51 ΕM pb5 10593 ΕM

REPLICATE #3 BLANK ΕM 12 Cr

-57 pb5 ЕΜ 10604 ΕM 9.2 CV 692.8 CONC 1.3 SD ΑV Cr

0.000 0.000 57.9 CV 642.9 CONC 9.0 SD A۷ pb5 17.3 CV 0.2 CONC 10608.0 SD A۷

REPLICATE #1 ICV 1.977 mg/Kg 2670 1.977 mg/L ΕM Cr 1.991 mg/L 1.991 mg/Kg 5363 pb5 ΕM 10801 ΕM

ICV Cr pb5	E M E M		2657 3327	REPLICA 1.995 mg/L 2.005 mg/L EM 10652	1.995		
ICV Cr pb5	E M E M		680 179	REPLICA 2.000 mg/L 1.938 mg/L EM 10714	2.000	mg/Kg mg/Kg	
	Cr pt Y	5	A V A V A V	2669.0 EM SD 5289.7 EM SD 10722.3 EM SD	11.5 97.5 74.8	CV CV	0.4 1.8 0.7
	C r p b		A V	1.991 mg/L SD 1.978 mg/L SD	0.0123 0.0353	C V	0.62 1.79
	Cr		A V A V	1.991 mg/Kg SD 1.978 mg/Kg SD	0.0123 0.0353	CV	0.62 1.79
ICB Cr pb5	E M E M	Y	17 36	REPLICA 0.012 mg/L 0.010 mg/L EM 10697	0.012	mg/Kg mg/Kg	0943 10/02/95 peak-noisy
ICB Cr pb5	E M E M	Y	12 31	REPLICA 0.008 mg/L 0.008 mg/L EM 10650	0.008	mg/Kg	peak-noisy
TCB Cr pb5	E M E M	Y	9 51	REPLICA 0.006 mg/L 0.016 mg/L EM 10744	0.006		window-edge
	C r p b Y		A V A V A V	12.7 EM SD 39.3 EM SD 10697.0 EM SD	4.0 10.4 47.0	C V C V	31.9 26.5 0.4
	C r p b		A V A V	0.008 mg/L SD 0.011 mg/L SD	0.0030 0.0038		35.80 33.84
	C r p b		A V A V	0.008 mg/Kg SD 0.011 mg/Kg SD			35.80 33.84
ICSA			:	0.030 mg/L		mg/Kg	0947 10/02/95 window-edge
ICSA	1			REPLICA	0.009	mg/Kg mg/Kg	
1 C S A	1			REPLICA	0.029		peak-noisy
	( ; p:t Y	, ',	A V A V A V	.9.0 fM SD 4.3 EM SD 9901.7 EM SD	14.7 82.4 50.5		50.8 901.1 0.5

AV 0.022 mg/L

Сr

SD

0.0120 CV

53.33

```
0.022 mg/Kg
           Сr
                    ΑV
                                          SD
                                               0.0120
                                                      CV
                                                            53.33
           \rho h^{\mathfrak{c}}
                          -0.002 mg/Kg
                    ΑV
                                          SD
                                               0.0335 CV
                                                          2174.63
I \cup S \wedge B I
                               REPLICATE
                                                  # 1
                                                            0951 10/02/95
        . 71
                 1.17
                            0.499 mg/L
                                                 0.499 mg/Kg
p \vdash 0
                3331
                            0.907 mg/L
        1 11
                                                 0.907 mg/Kg
                                9872
I \in S \land B I
                               REPLICATE #2
                            Willes my, 1
                                                 0.495 \text{ mg/Kg}
                ....
                            0.909 mg/L
                                                 0.909 \text{ mg/Kg}
                                9945
                        LM
ICSABI
                               REPLICATE #3
    ΕM
Cr.
                 608
                            0.492 \text{ mg/L}
                                                 0.492 mg/Kg
\rho b 5
        EΜ
                2416
                            0.980 mg/L
                                                 0.980 mg/Kg
                        ΕM
                                9864
                           614.0 EM
           Cr
                    A۷
                                          SD
                                                 5.2
                                                      CV
                                                              0.8
           pb5
                          2304.0 EM
                    A۷
                                          SD
                                                 97.6
                                                              4.2
                                                      CV
           Υ
                    A۷
                          9893.7 EM
                                          SD
                                                 44.6
                                                      CV
                                                              0.5
           Cr
                    A۷
                           0.496 \text{ mg/L}
                                          SD
                                               0.0034
                                                      CV
                                                             0.70
                           0.932 mg/L
           pb5
                    A۷
                                          SD
                                               0.0419
                                                      CV
                                                             4.49
           Сr
                    A۷
                           0.496 mg/Kg
                                          SD
                                               0.0034
                                                      CV
                                                             0.70
           pb5
                    A۷
                           0.932 mg/Kg
                                          SD
                                               0.0419
                                                      CV
                                                             4.49
PBLK0929
                 P3010
                              REPLICATE #1
                                                            0956 10/02/95
Сr
                  13
        ΕM
                            0.009 mg/L
                                                0.009 mg/Kg
                                                                 peak-noisy
pb5
        ΕM
                  90
                                                0.032 mg/Kg
                            0.032 \, \text{mg/L}
                                                                 window-edge
               Υ
                               10307
                        ΕM
PBLK0929
                 P3010
                              REPLICATE #2
Cr
                  10
                            0.007 mg/L
        ΕM
                                                 0.007 mg/Kg
pb5
        EM
                            0.011 \text{ mg/L}
                  36
                                                0.011 mg/Kg
                                                                 window-edge
                        ΕM
                               10275
PBLK0929
                 P3010
                              REPLICATE #3
              2
Cr
        ΕM
                            0.001 mg/L
                                                0.001 \, \text{mg/Kg}
pb5
        ΕM
                  47
                            0.015 mg/L
                                                0.015 mg/Kg
                                                                 window-edge
               Υ
                        ΕM
                              10420
           Cr
                    ΑV
                             8.3 EM
                                         SD
                                                 5.7
                                                      C۷
                                                             68.2
           pb5
                    A۷
                            57.7 EM
                                          SD
                                                28.5
                                                      C۷
                                                             49.5
                    A۷
                         10334.0 EM
                                          SD
                                                76.2
                                                      C۷
                                                              0.7
           Cr
                    ΑV
                           0.005 \text{ mg/L}
                                          SD
                                              0.0044
                                                      CV
                                                            81.00
           pb5
                           0.019 \text{ mg/L}
                    A۷
                                          SD
                                              0.0111
                                                      CV
                                                            58.60
           Сr
                    A۷
                           0.005 mg/Kg
                                         SD
                                              0.0044
                                                     C۷
                                                            81.00
           pb5
                    A۷
                           0.019 \text{ mg/Kg}
                                         SD
                                              0.0111
                                                     CV
                                                            58.60
LCSW-1
                               REPLICATE #1
                                                            1000 10/02/95
Cr
        ΕM
                2928
                            2.122 mg/L · 2.122 mg/Kg
                                               1.840 mg/Kg
pb5
        ΕM
                5064
                            1.840 mg/L
               Υ
                        ΕM
                               11034
LCSW-1
                               REPLICATE #2
Cr
        EM
                2958
                            2.175 mg/L
                                                2.175 mg/Kg
pb5
        EM
                5301
                            1.954 mg/L
                                                1.954 mg/Kg
               Υ
                        ΕM
                               10877
LCSW-1
                               REPLICATE #3
```

2.172 mg/L 2.172 mg/Kg

Cr

ΕM

2932

pb5	E M	5223 Y	1.940 mg/L EM 10793		1.940	, mg/Kg	1
	Cr pb5 Y	A V A V A V	2939.3 EM 5196.0 EM 10901.3 EM	SD SD SD	16.3 120.8 122.3	CV CV	0.6 2.3 1.1
	Cr pb5	A V A V	2.156 mg/L 1.911 mg/L	SD SD	0.0298 0.0623	C V	1.38 3.26
	Cr pb5	A V A V	2.156 mg/Kg 1.911 mg/Kg		0.0298 0.0623	CV	1.38 3.26
<b>09A0</b> Cr . pb5	8018 EM EM	2 4 4 2 Y	REPL 0.018 mg/L 0.013 mg/L EM 10229		TE #1 0.018 0.013	mg/Kg	1004 10/02/95
Cr pb5	EM	23 28	0.008 mg/L FM 10290		0.017	mg/Kg mg/Kg	peak-noisy
0'9 A 0	0 <b>8 O 1 B</b> LM EM	15 112 v	REPL 0.010 mg/L 0.040 mg/L fM 10475	ICA	0.010 0.040	: mg/Kg mg/Kg	peak-noisy
	թ <b>Ե</b>		73.7 EM 60.7 EM 10331.3 EM	SD	4.9 45.0 128.1	C V C V	23.9 74.2 1.2
		A .		50 50	0.0040 0.0171	C V	26.55 85.33
	r i pb5	A V	0.015 mg/Kg 0.020 mg/Kg		0.0040 0.0171	C V	26.55 85.33
<b>9 A O</b> 8 Եր թեն	0785  M  H	1278 2230 Y	REPL 1.001 mg/L 0.874 mg/L EM 10207		1.001 0.874	mg/Kg	1008 10/02/95
	0785 EM EM	1311 2233 Y	REPL 1.019 mg/L 0.869 mg/L EM 10282		TE #2 1.019 0.869	mg/Kg	•
<b>9 A O 8</b> Cr pb5	078S EM EM	1300 2298 Y	REPL 1.003 mg/L 0.887 mg/L EM 10364	ICA	TE #3 1.003 0.887	mg/Kg	
	Cr pb5 Y	AV AV	1296.3 EM 2253.7 EM 10284.3 EM	SD SD SD	16.8 38.4 78.5	CV CV	1.3 1.7 0.8
	Cr pb5	A V A V	1.007 mg/L 0.877 mg/L	SD SD	0.0101 0.0094	C V C V	1.00 1.07
	Cr pb5	A V A V	1.007 mg/Kg 0.877 mg/Kg	SD SD	0.0101 0.0094	CV.	1.00 1.07
<b>9A08</b>	O8BK	1254	REPL 0.973 mg/L	ICA	TE #1		1012 10/02/95

pus	E ()	Υ	EM 10305		U.U.C.U mg/	IV 9
	088K		REPL	ICA	TE #2	
Cr pb5	E M E M	1264 2197 Y	0.972 mg/L 0.846 mg/L EM 10393		0.972 mg/ 0.846 mg/	Kg Kg
<b>9A08</b> Cr pb5	088K EM EM	1237 2176 Y	REPL 0.950 mg/L 0.837 mg/L EM 10405	ICA	TE #3 0.950 mg/ 0.837 mg/	К g К g
	Cr pb5 Y	AV AV	1251.7 EM 2168.3 EM 10367.7 EM	SD SD SD	13.7 CV 33.2 CV 54.6 CV	1.1 1.5 0.5
	Cr pb5	A V A V	0.965 mg/L 0.837 mg/L	SD SD	0.0128 CV 0.0090 CV	1.33
	Cr pb5	A V A V	0.965 mg/Kg 0.837 mg/Kg	SD SD	0.0128 CV 0.0090 CV	1.33 1.08
O9AO Cr pb5	802B EM EM	38 12 Y	REPL 0.029 mg/L 0.001 mg/L EM 10270		<b>FE #1</b> 0.029 mg/ 0.001 mg/	1016 10/02/95 Kg peak-noisy Kg peak-noisy
O9AO Cr pb5	E M E M	36 116 Y	REPL 0.027 mg/L 0.042 mg/L EM 10306		<b>re #2</b> 0.027 mg/l 0.042 mg/l	(g (g peak-noisy
O9AO Cr pb5	E M E M	34 150 Y	REPL 0.025 mg/L 0.054 mg/L EM 10405	ICAT	「 <b>任 #3</b> 0.025 mg/k 0.054 mg/k	Kg peak-noisy Kg peak-noisy
	Cr pb5 Y	A V A V A V	36.0 EM 92.7 EM 10327.0 EM	SD SD SD	2.0 CV 71.9 CV 69.9 CV	5.6 77.6 0.7
	Cr pb5	A V A V	0.027 mg/L 0.033 mg/L	SD SD	0.0017 CV 0.0278 CV	6.43 85.44
	Cr pb5	A V A V	0.027 mg/Kg 0.033 mg/Kg	SD SD	0.0017 CV 0.0278 CV	6.43 85.44
Ο <b>Ο Λ Ο</b> ( ) ( )	1 M 1 M	2.7 4.9 v	REPL 0.016 mg/L 0.016 mg/L EM 10248	ICAI	「 <b>モ #1</b> 0.016 mg/k 0.016 mg/k	g
	80315 	. <b>;</b> :a	# # P t 0.010 mg/L 0.008 mg/L 10443	ICAT	E #2 0.010 mg/K 0.008 mg/K	g g window-edge
0980	80315		RT PI	ICAI		
					0.021 mg/K 0.038 mg/K	g peak-noisy g peak-noisy
	C r p b 5 Y	A V A V A V	21.7 EM 62.0 EM 10384.3 EM	S D S D S D	7.5 CV 40.1 CV 118.4 CV	34.6 64.7 1.1

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	6 .	A 11	0.016 //	SD	0.0057	۲V	36.60
	Cr pb5	A V A V	0.016 mg/L 0.021 mg/L	SD			74.66
	e i pb5	A √ A V	0.016 mg/Kg 0.021 mg/Kg	S D S D	0.0057 0.0153		36.60 74.66
09408	B O 4 B		REPL C. Markt			ma/Ka	1025 10/02/95
			• • • • • • • • • • • • • • • • • • • •		0.019	mg/Kg	window-edge(
	B O 4 B EM EM Y	40 86		ICA	TE #2 0.029 0.029	mg/Kg mg/Kg	window-edge
<b>09ΑΟ</b> : Cr pb5	EM	37 43	REPL 0.027 mg/L 0.013 mg/L EM 10596	I C A .	TE #3 0.027 0.013	mg/Kg mg/Kg	peak-noisy
	Cr pb5 Y	A V A V A V	35.7 EM 62.7 EM 10691.3 EM	SD SD SD		CV CV	14.4 34.7 0.8
	Cr pb5	A V A V	0.026 mg/L 0.020 mg/L	S D S D	0.0039 0.0080	C V	15.14 40.00
		A V A V	0.026 mg/Kg 0.020 mg/Kg		0.0039 0.0080		15.14 40.00
09A0	805B	1.0	REPL	ICA	TE #1	- ma/Ka	1029 10/02/95
Cr pb5	EM EM Y	72	REPL 0.013 mg/L 0.024 mg/L EM 10509		0.024	mg/Kg	peak-noisy
0940		7.1	<b>REPL</b> 0.015 mg/L		TE #2	mg/Kg	
Cr pb5	E M Y	21 85	0.029 mg/L EM 10465		0.029		peak-noisy
<b>09A0</b> Cr pb5	805B EM EM	30 111	REPL 0.022 mg/L 0.039 mg/L EM 10621	ICA		≸ mg/Kg mg/Kg	
	Cr pb5 Y	A V A V A V	23.3 EM 89.3 EM 10531.7 EM	SD SD SD	5.9 19.9 80.4	C V C V	25.1 22.2 0.8
	Cr pb5	A V A V	0.017 mg/L 0.031 mg/L	SD SD	0.0043 0.0073	C V	25.81 23.94
	Cr pb5	A V A V	0.017 mg/Kg 0.031 mg/Kg	S D S D	0.0043 0.0073	C V	25.81 23.94
	806B	47		ICA	TE #3	L mg/Kg	
Cr pb5	EM EM Y	47 32	0.037 mg/L 0.010 mg/L EM 9875			mg/Kg	
<b>09A0</b> Cr pb5	8068 EM EM	55 48	REPL 0.043 mg/L 0.016 mg/L EM 9902			≥ mg/Kg mg/Kg	

<b>09A0</b> Cr pb5	ΕM	49 79	<b>REPL</b> 3 0.038 mg/L 0.029 mg/L	I C A I	re #3 0.038 0.029	mg/Kg mg/Kg	
	Cr pb5 Y		50.3 EM 53.0 EM 9900.7 EM	SD SD SD		C V	8.3 45.1 0.3
	Cr pb5	A V A V	0.040 mg/L 0.018 mg/L	SD SD	0.0033 0.0096	C V	8.42 53.31
	Cr pb5	A V A V	0.040 mg/Kg 0.018 mg/Kg	SD SD	0.0033 0.0096		8.42 53.31
pb5	EM EM	2786 5477 Y	2.017 mg/L 1.989 mg/L		2.017	mg/Kg	1038 10/02/95
CCV1	† ₩ 	v V	REPL		2.079	mg/Kg	
CCV1	<b></b>		REPL		2.005		
	C r 5 5 5	ΑV	2768.3 EM 5431.0 EM 10 (5.0 EM	SD		C V C V	1.8 2.2 1.3
	i i pb5	A • A v	2.034 mg/L 2.001 mg/L	S D S D			1.96 2.23
	Cr pb5		2.034 mg/Kg 2.001 mg/Kg	S D S D	0.0399 0.0445	CV	1.96 2.23
CCB1	E M E M	7 55 Y	REPL 0.004 mg/L 0.017 mg/L EM 10752		0.004	mg/Kg	1042 10/02/95  peak-noisy  peak-noisy
C C B 1 tr pb5	E M E M	6 74 Y	REPL 0.003 mg/L 0.024 mg/L EM 10847	ICA	TE #2 0.003 0.024	≥ mg/Kg mg/Kg	window-edge peak-noisy
C C B 1 Cr pb5	E M E M	8 12 Y	REPL 0.005 mg/L 0.001 mg/L EM 10810	ICA	TE #3 0.005 0.001	<b>≸</b> mg/Kg mg/Kg	window-edge peak-noisy
	Cr pb5 Y	A V A V	47.0 EM	SD SD SD	1.0 31.8 47.9		14.3 67.6 0.4
	Cr pb5	A V A V	0.004 mg/L 0.014 mg/L	SD SD	0.0007 0.0118	C V	17.90 83.75
	Cr pb5	A V A V		SD SD	0.0007	C V	17.90 83.75
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Cr EM pb5 EM	3371 193	REPLICATE #1 1046 10/02/95 2.959 mg/L 2.959 mg/Kg 0.082 mg/L 0.082 mg/Kg EM 9112
Cr EM pb5 EM	CR 3451 147 Y	REPLICATE #2 2.927 mg/L 2.927 mg/Kg 0.059 mg/L 0.059 mg/Kg peak-noisy EM 9430
PDS EM	CR 3485 124 Y	REPLICATE #3 2.938 mg/L 2.938 mg/Kg 0.049 mg/L 0.049 mg/Kg EM 9487
Cr pb5 Y	A V A V A V	3435.7 EM SD 58.5 CV 1.7 154.7 EM SD 35.1 CV 22.7 9343.0 EM SD 202.1 CV 2.2
	A V A V	2.941 mg/L SD 0.0162 CV 0.55 0.063 mg/L SD 0.0167 CV 26.33
Cr pb5	A V A V	2.941 mg/Kg SD 0.0162 CV 0.55 0.063 mg/Kg SD 0.0167 CV 26.33
O9A25O3A Cr EM pb5 EM	10 71	REPLICATE #1 1051 10/02/95 0.007 mg/L 0.007 mg/Kg 0.025 mg/L 0.025 mg/Kg peak-noisy EM 9928
Cr EM pb5 EM	10	REPLICATE #2 0.007 mg/L 0.007 mg/Kg window-edge 0.042 mg/L 0.042 mg/Kg EM 9967
09A2503A Cr EM pb5 EM	<b>CR</b> 8 79 Y	REPLICATE #3 0.005 mg/L 0.005 mg/Kg peak-noisy 0.029 mg/L 0.029 mg/Kg EM 9937
Cr pb5 Y	A V A V A V	9.3 EM SD 1.2 CV 12.4 87.7 EM SD 22.3 CV 25.4 9944.0 EM SD 20.4 CV 0.2
Cr pb5	A V A V	0.007 mg/L SD 0.0009 CV 14.22 0.032 mg/L SD 0.0089 CV 27.90
C r pb5	A V A V	0.007 mg/Kg SD 0.0009 CV 14.22 0.032 mg/Kg SD 0.0089 CV 27.90
09A2603A	CR	REPLICATE #1 1055 10/02/95 0.026 mg/L 0.026 mg/Kg peak-noisy 0.016 mg/Kg
09A2603A	CR	REPLICATE #2 0.013 mg/Kg 0.006 mg/Kg window-edge
09A2603A cr rx pt5 EM	C R 50 176 Y	REPLICATE #3 0.0.3 mg/L 0.023 mg/Kg peak-noisy 0.067 mg/L 0.067 mg/Kg EM 10111

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р b 5 <b>Y</b>	A V A V	72.7 EM 10004.7 EM	S D S D	93.5 94.6	CA	128.6
( · · · · · · · · · · · · · · · · · · ·	A.V A.√	0.021 mg/L 0.026 mg/L	SD SD	0.0067 0.0371		32.03 145.13
Cr pb <sup>c</sup>	AV	0.021 mg/Kg 0.026 mg/Kg	S D S D	0.0067 0.0371		
09929011	4,	REPL 		0.009	ma/Ka	1100 10/02/95
<b>09929010</b> Cr EM pb5 EM	PB 23 152 Y	REPL 0.017 mg/L 0.056 mg/L EM 10208	ICA	TE #2 0.017 0.056	mg/Kg mg/Kg	window-edge
Cr EM pb5 EM	15	REPL 0.011 mg/L 0.034 mg/L EM 10194		0.011	mg/Kg	peak-noisy
Cr pb5 Y		17.0 EM 110.3 EM 10170.0 EM	SD SD SD	5.3 36.4 54.1	CV CV	31.1 33.0 0.5
Cr pb5	A V A V		S D S D	0.0041 0.0142	C V	33.23 35.34
Cr pb5	A V A V	0.012 mg/Kg 0.040 mg/Kg	S D S D	0.0041 0.0142		33.23 35.34
PBLK0929 Cr EM pb5 EM	15 54	1 OP REPL 0.012 mg/L 0.020 mg/L EM 9191		TE #1 0.012 0.020	mg/Kg mg/Kg	1104 10/02/95 peak-noisy window-edge
PBLK0929 Cr EM pb5 EM	P30: 18 52 Y	10P REPL 0.014 mg/L 0.019 mg/L EM 9456	ICA	TE #2 0.014 0.019	mg/Kg mg/Kg	peak-noisy
		1 OP REPL -0.001 mg/L 0.021 mg/L EM 9394		-0.001 0.021	mg/Kg mg/Kg	peak-noisy peak-noisy
Cr pb5 Y	A V A V A V	11.0 EM 54.3 EM 9347.0 EM	5.0	9.6 2.5 138.6	CV	87.7 4.6 1.5
Cr pb5		0.008 mg/L 0.020 mg/L		0.0082 0.0012		97.80 5.82
Cr pb5		0.008 mg/Kg 0.020 mg/Kg	SD SD	0.0082	CV	97.80 5.82
LCSS1225 Cr EM pb5 EM	476	REPL 0.366 mg/L 0.761 mg/L EM 10367		752.20	ma/Ka	
LCSS1225 Cr EM	486	<b>REPL</b> 0.374 mg/L	ICA	TE #2		

p b 5	ЕМ	2049 Y	0.791 mg/L 158.20 mg/Kg EM 10355	
Cr pb5	ΕM	490 2026 Y	REPLICATE #3 0.381 mg/L 76.20 mg/Kg 0.789 mg/L 157.80 mg/Kg EM 10270	
	Cr pb5 Y		484.0 EM SD 7.2 CV 2016.0 EM SD 39.0 CV 10330.7 EM SD 52.9 CV	1.5 1.9 0.5
,	Cr pb5	A V A V		1.93 2.16
	Cr pb5	A V A V		1.93 2.16
Cr	E M E M	151 225	0.130 mg/L 13.00 mg/Kg 0.094 mg/L 9.40 mg/Kg	113 10/02/95
0 9 A 2 cr pb5	E. M E. M	156 363	REPLICATE #2 0.136 mg/L 13.60 mg/Kg 0.153 mg/L 15.30 mg/Kg 8M 9347	
	1 "	409	REPUICATE #3 13.20 mg/Kg 0.173 mg/L	peak-noisy
	( γ γ γ γ γ γ γ γ γ γ γ γ γ γ γ γ γ γ γ	A . A ./ A .V	195. CEM 50 4.5 CV 332.3 EM 50 95.8 CV 9298.3 EM SD 51.7 CV	2.9 28.8 0.6
	Cr pb5	A V A V		2.37 9.19
	Cr pb5	A V A V	13.30 mg/Kg SD 0.310 CV 14.00 mg/Kg SD 4.090 CV 25	2.37 9.19
<b>9A24</b> Cr pb5	018S EM EN	1503 2556 Y	REPLICATE #1 1: 1.262 mg/L 126.20 mg/Kg 1.075 mg/L 107.50 mg/Kg 9519	117 10/02/95
Cr	018S EM EM	1510 2513 Y	REPLICATE #2 1.260 mg/L 126.00 mg/Kg 1.050 mg/L 105.00 mg/Kg EM 9584	
<b>9A24</b> Cr pb5	018S EM EM	1571 2352 Y	REPLICATE #3 1.290 mg/L 129.00 mg/Kg 0.967 mg/L 96.70 mg/Kg EM 9735	
	Cr pb5 Y	A V A V A V	1528.0 EM SD 37.4 CV 2473.7 EM SD 107.5 CV 9612.7 EM SD 110.8 CV	2.4 4.3 1.2
	Cr pb5	A V A V		1.33 5.49

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pb5 AV 103.10 mg/Kg SD 5.650 CV 5.49

        9A24018K
        CR
        REPLICATE III

        Cr
        EM
        1520
        1.273 mg/L
        127.30 mg/Kg

        FM
        2503
        1.050 mg/L
        105.00 mg/Kg

                                                                             1122 10/02/95
                               ΕM
                                       9548
                                        REPLICATE #2
9A2401BK CR
                    1539 1.296 mg/L
2716 1.146 mg/L
                                    1.296 mg/L 129.60 mg/Kg
1.146 mg/L 114.60 mg/Kg
Cr
         ΕM
pb5
           ΕM
                    Y EM 9493

        9A2401BK
        CR
        REPLICATE
        #3

        Cr
        EM
        1572
        1.296 mg/L
        129.60 mg/Kg

        pb5
        EM
        2600
        1.074 mg/L
        107.40 mg/Kg

                                        REPLICATE #3
                                                             107.40 mg/Kg
                              EM 9697
                    Υ
                                  1543.7 EM SD
2606.3 EM SD
9579.3 EM SD
                                                              26.3 CV
                                                                                 1.7
                     ΑV
               Cr
               pb5
                                                              106.6 CV
                                                                                 4.1
                        ΑV
                                                              105.5 CV
                          A۷
                                                                                 1.1
                    A V
A V
                                  1.288 mg/L SD
1.090 mg/L SD
                                                             0.0135 CV
                                                                                1.05
               Cr
                                                           0.0501 CV
               pb5
                       AV 128.80 mg/Kg SD 1.350 CV
AV 109.00 mg/Kg SD 5.010 CV
               Сr
                                                                                1.05
                                                                                4.60
               pb5
                                         REPLICATE #1 1126 10/02/95
09A2402B CR
                                0.099 mg/L
0.073 mg/L
      EM 126
EM 192
                                                                 9.90 mg/Kg
                                     0.073 \text{ mg/L}
                                                                7.30 mg/Kg peak-noisy
pb5
                    Y
                               EM 10056

        O9A2402B
        CR
        REPLICATE
        #2

        Cr
        EM
        156
        0.122 mg/L
        12.20 mg/Kg

        pb5
        EM
        208
        0.079 mg/L
        7.90 mg/Kg

          ΕM
                               ΕM
                                      10173

        O9A2402B
        CR
        REPLICATE

        Cr
        EM
        139
        0.107 mg/L
        10.70 mg/Kg

        FM
        172
        0.064 mg/L
        6.40 mg/Kg

                    172
Y
                               ΕM
                                        10279
                                                   SD 15.0 CV
SD 18.0 CV
                               140.3 EM
190.7 EM
                                                                                10.7
                     AV
               Cr
                                                                                9.5
                       A V
A V
               pb5
                               10169.3 EM
                                                     SD
                                                              111.5 CV
                                                                                 1.1
                        AV
                                   0.109 mg/L SD
0.072 mg/L SD
                                                             0.0114 CV
                                                                               10.40
               Cr
                                                      SD
                                                             0.0075 CV
                                                                               10.49
               pb5
                         ΑV
                                 10.90 mg/Kg SD 1.140 CV
7.20 mg/Kg SD 0.750 CV
                                                                               10.40
                         ΑV
               Cr
                                                                               10.49
               pb5
                        ΑV
                                 REPLICATE #1 1131 10/02/95
 09A2501B CR
                               0.084 mg/L
                                                                8.40 mg/Kg peak-noisy
                  . 10
                               EM 9615
                                RIPLICATE #2
 09A2501B CR
                                                               11.10 mg/Kg
                              12.40 mg/Kg
                                         REPLICATE #3
 09A25018
                     CR
                                    0.090 mg/L 9.00 mg/Kg
 Cr EM
                       109
                                                                11.10 mg/Kg
 pbs
                       274
                                      0.111 \, \text{mg/L}
           EM
```

9633

Υ

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LP
             Сr
                      ΑV
                            123.3 EM
                                          SD
                                                 13.6
                                                       CV
                                                             11.0
             pb5
                      ΑV
                            263.7 EM
                                          SD
                                                 49.3
                                                       CV
                                                             18.7
             Y
                      ΑV
                            9648.3 EM
                                          SD
                                                 43.1
                                                       CV
                                                              0.4
             Cr
                      ΑV
                            0.101 \text{ mg/L}
                                          SD
                                               0.0109
                                                      CV
                                                            10.81
             pb5
                     ΑV
                            0.106 mg/L
                                          SD.
                                               0.0201
                                                            18.91
             ( ,
                      AV
                            10.10 mg/Kg
                                          SD
                                                1.090
                                                      CV
                                                            10.81
             1165
                     ΑV
                            10.60 mg/Kg
                                          SD
                                                2.010
                                                      CV
                                                            18.91
  09A2502B
                  CR
                                REPLICATE
                                                 # 1
  Cr
                                                            1135 10/02/95
         ΕM
                  142
                            0.113 mg/L
                                                 11.30 mg/Kg
  pb5
          EΜ
                  342
                             0.135 \text{ mg/L}
                                                13.50 mg/Kg
                         ΕM
                                9948
 09A2502B
                  CR
                                REPLICATE #2
 Cr
       ΕM
                  126
                             0.100 mg/L
                                                10.00 mg/Kg
 pb5
          ЕМ
                  296
                             0.116 mg/L
                                                11.60 mg/Kg
                Υ
                        ΕM
                               9998
 09A2502B
                  CR
                              REPLICATE #3
 C r
         ΕM
                143
                            0.113 mg/L 11.30 mg/Kg
 pb5
         ΕM
                 348
                            0.136 mg/L
                                                13.60 mg/Kg
                        ΕM
                           10032
            Cr
                    ΑV
                           137.0 EM
                                         SD
                                                9.5
                                                      CV
                                                             7.0
            pb5
                    ΑV
                           328.7 EM
                                         SD
                                                28.4
                                                      CV
                                                             8.7
                          9992.7 EM
                    ΑV
                                         SD
                                                42.3
                                                      CV
                                                             0.4
            Сr
                    A۷
                           0.109 mg/L
                                         SD
                                              0.0077
                                                            7.06
            pb5
                    A۷
                           0.129 mg/L
                                         SD
                                              0.0114
                                                      CV
            Cr
                    ΑV
                           10.90 mg/Kg
                                         SD
                                               0.770 CV
                                                            7.06
            pb5
                    ΑV
                           12.90 mg/Kg
                                         SD
                                               1.140
                                                     CV
                                                            8.89
 09A2601B
                  CR
                              REPLICATE #1
 Cr
                                                           1140 10/02/95
       ΕM
                 148
                           0.119 mg/L 11.90 mg/Kg
pb5
         EΜ
                 383
                            0.153 mg/L
                                               15.30 mg/Kg
                        ΕM
                               9851
09A2601B
                 CR
                               REPLICATE
                                                #2
Сr
        ΕM
                 151
                            0.120 mg/L
                                               12.00 mg/Kg
pb5
         ΕM
                 359
                            0.141 \text{ mg/L}
                                               14.10 mg/Kg
                        ΕM
                              10014
09A2601B
                 CR
                              REPLICATE #3
        EM
Cr
                 142
                           0.113 \text{ mg/L}
                                        11.30 mg/Kg
pb5
        ΕM
                437
                           0.173 mg/L
                                               17.30 mg/Kg
               Υ
                       ΕM
                               9946
           Cr
                    A۷
                          147.0 EM
                                        SD
                                                4.6
                                                     CV
                                                            3.1
           pb5
                    A۷
                          393.0 EM
                                        SD
                                               39.9
                                                     CV
                                                           10.2
           Υ
                   A۷
                         9937.0 EM
                                        SD
                                               81.9
                                                    CV
                                                            0.8
           Cr
                   ΑV
                          0.117 mg/L
                                        SD
                                             0.0036
                                                    CV
           pb5
                                                           3.05
                   A۷
                          0.155 mg/L
                                        SD
                                             0.0164
                                                    CV
                                                          10.56
           Cr
                   A۷
                          11.70 mg/Kg
                                        SD
                                              0.360
                                                    CV
                                                           3.05
           pb5
                          15.50 mg/Kg
                   A۷
                                        SD
                                              1.640
                                                    CV
                                                          10.56
09A2602B
                CR
                              REPLICATE
                                               # 1
                                                          1144 10/02/95
Cr
        ΕM
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168

407

pb5

ΕM

0.133 mg/L

0.160 mg/L

1000

13.30 mg/Kg

16.00 mg/Kg

O9A26O2B CR Cr EM 156 pb5 EM 216	REPLICATE #2 0.123 mg/L 12.30 mg/Kg 0.083 mg/L 8.30 mg/Kg EM 10095
O9A26O2B CR Cr EM 144 pb5 EM 249	REPLICATE #3  0.114 mg/L 11.40 mg/Kg 0.096 mg/L 9.60 mg/Kg peak-noisy EM 10054
Cr AV pb5 AV Y AV	156.0 EM SD 12.0 CV 7.7 290.7 EM SD 102.1 CV 35.1 10050.0 EM SD 47.1 CV 0.5
Cr AV pb5 AV	0.123 mg/L SD 0.0099 CV 8.05 0.113 mg/L SD 0.0414 CV 36.68
Cr AV pb5 AV	12.30 mg/Kg SD 0.990 CV 8.05 11.30 mg/Kg SD 4.140 CV 36.68
CCV2	REPLICATE #1 1149 10/02/95 2.036 mg/L 2.036 mg/Kg 2.033 mg/L 2.033 mg/Kg EM 11186
CCV2	REPLICATE #2 1.990 mg/Kg 1.990 mg/Kg 2.009 mg/Kg 2.009 mg/Kg
C C V 2	REPLICATE #3 2.041 mg/Kg 2.004 mg/Kg
Cr AV pb5 AV Y AV	2793.3 EM SD 47.7 CV 1.7 5552.3 EM SD 121.5 CV 2.2 11046.0 EM SD 167.1 CV 1.5
Cr AV pb5 AV	2.022 mg/L SD 0.0281 CV 1.39 2.015 mg/L SD 0.0156 CV 0.77
Cr AV pb5 AV	2.022 mg/Kg SD 0.0281 CV 1.39 2.015 mg/Kg SD 0.0156 CV 0.77
CCB2 Cr EM 3 pb5 EM 82 Y	REPLICATE #1 1153 10/02/95 0.001 mg/L 0.001 mg/Kg peak-noisy 0.027 mg/Kg peak-noisy 10744
CCB2 Cr EM -3 pb5 EM 45 Y	REPLICATE #2 -0.003 mg/L -0.003 mg/Kg peak-noisy 0.013 mg/L 0.013 mg/Kg peak-noisy EM 10814
CCB2 Cr EM 12 pb5 EM 38	REPLICATE #3 0.008 mg/L 0.008 mg/Kg peak-noisy 0.011 mg/L 0.011 mg/Kg peak-noisy EM 10843
Cr AV pb5 AV Y AV	4.0 EM SD 7.5 CV 188.7 55.0 EM SD 23.6 CV 43.0 10800.3 EM SD 50.9 CV 0.5
Cr_ AV	0.002 mg/L SD 0.0056 CV 285.66

		pb5	ΑV	/ O.(	17	mg/L	60	0 000	0	_	
		Cr	AV	0.0	102	ma/Ka	SD SD			52.1	•
165	<b>.</b> .	tofor.	AV	0.0	117	mg/Kg	SD	0.0050 0.0089	e cv	285.6 52.1	
	EM EM		23	0.	$\sigma$	31 U / I		TE #	^		10/02/95
, ,	,	,	23	~0.	012 9	mg/L 957		-0.01	.2 mg/K	9	window-edge
1 C S	. <b></b> [ #		171		073	E P L mg/L mg/L 837	ICA	TE # 0.01 -0.07	<b>2</b> 1 mg/Kg 3 mg/Kg	) )	peak-noisy window-edge
ICS.	ΕM		31	0.0	<b>R</b> :	EPL	ICA	TE #	3		
2 d q	ΕM	Υ	-112	- • •	99			0.02	4 mg/Kg 9 mg/Kg		window-edge
		Cr	۸V	23.	0 E	: M	SD	8.0	CV		
		рЬ5 Ү	A V A V	-101. 9866.	0 E	ĭM ĭM	S D S D	76.1 34.9	C V	34.8 75.3 0.4	_
		Cr pb5	A V A V	0.01 -0.04	8 m 5 m	g/L g/L	SD SD	0.0064	CV	36.41	
		Cr pb5	ΑV	0.01	8 m	g/Ka	50	0.0064	cv	69.74 36.41	
ICSA		pus	AV	-0.04	5 m	g/Kg	SD	0.0311	CV	69.74	
Cr pb5	EM EM		611 317	0.4 0.9 EM	94 39 98	mg/L mg/L	CAT	0.494 0.939	L mg/Kg mg/Kg	1202	10/02/95
ICSA Cr pb5	EM EM	2	635 379	0.50	ו ענ	ng/L ng/L	CAT	0.509 0.956	<b>≥</b> mg/Kg mg/Kg		
ICSA Cr pb5	BF EM EM		542 302	0.52 0.93 EM	, T ui	19/L 19/L	CAT	0.521 0.937	<b>:</b> mg/Kg mg/Kg		
		r b5	A V A V A V	629.3 2332.7 9890.3	ΕM		SD SD SD	16.3 40.8 65.1	CV CV	2.6 1.7 0.7	
	C P	r b5	A V A V	0.508 0.944	mg mg	/L /L		0.0139 0.0105	C V	2.73 1.11	
	C p	r b5	A V A V	0.508 0.944	mg,	/Kg /Kg	SD	0.0139	CV	2.73	
CCV3 Cr pb5	E M E M	26 53 Y	06	1.98 2.022	: <b>E</b> 1	<b>PLI</b> 9/L 9/L	CAT		1 mg/Kg		0/02/95
CCV3 Cr pb5	EM EM	26: 51: Y	23	2.027 1.994	mg	/L /L	CAT	E #2 2.027 1.994	ng/Kg ng/Kg		

Cr pb5	E M E M		122	2 1 EM	.973			2.013 1.973	mg/Kg mg/Kg		
		Cr pb5 Y	A V A V A V	261 518 1041	3.7	EM	SD SD SD	4.0 105.9 110.0		0.2 2.0 1.1	
		Cr pb5	A V A V			mg/L mg/L	S D S D	0.0203 0.0244	C V	1.01 1.22	
		Cr pb5	A V A V	2.1	009 996	mg/Kg mg/Kg	SD SD	0.0203 0.0244		1.01 1.22	
CCB3 Cr pb5	E M E M	Y	23 37	0 0 EM	.016	EPL 5 mg/L 1 mg/L 1558	ICAT	「E <b>井1</b> 0.016 0.011	mg/Kg mg/Kg	1210	10/02/95 peak-noisy window-edge
CCB3 Or pb5	E M F M		19 86	0 0 EM	.014	mg/L mg/L		0.014 0.030	mg/Kg		peak-noisy
C C B 3 Cr pl-5	EM		5 7 3	0	.005	5 mg/L		r <b>∈ #</b> 3 -0.005 0.025	mg/Kg		window-edge
		( r pb5 Y	A V A V A V	6		EM EM	SD SD SD	15.1 25.4 112.0	CV CV	122.8 38.9 1.1	
•		tr ibi,				mg/t mg/L		0.0116		137.72 45.75	
		Cr pb5	A V A V	υ. Ο.	008 022	m9/K9 m9/K9	SD SD	0.0116 0.0100		137.72 45.75	
SAMP Cr pb		E M E M U M Y	3 7 1 1	78 LO EM		0.300 0.041 0047	mg/L	TE #1			10/02/95
SAMP Cr pb!		E # 3 E M E M Y	39	97 76 EM		0.313 0.027 0130	mg/L	TE #2	≥ peak-n	oisy	
SAMP Cr pb!		E # 3; EM Y	4 (	)9 58 EM		0.317 0.019 0283	mg/L	TE #3	<b>3</b> peak−n	oisy	Cr
•		Cr pb5 Y	A V A V A V	39 8 1015		ΕM	SD SD SD	15.6 26.4 119.7	C V C V	4.0 32.5 1.2	5
		Cr pb5	A V A V			mg/L mg/L		0.0089 0.0108		2.87 37.50	
SAMP Cr pb		E #3 EM EM Y	58	81 55 EM		0.388 0.015 1952	ma/L	TE #:	<b>1</b> window	1219	10/02/95

SAMPLE #38 Cr EM pb5 EM Y	REPL 569 0.389 84 0.025 EM 11687		noisy
SAMPLE #38 Cr EM pb5 EM Y	552 0.382 12 0.001 EM 11527		
C r pb 5 <b>Y</b>	AV 567.3 EM AV 50.3 EM AV 11722.0 EM	SD 14.6 CV SD 36.2 CV SD 214.7 CV	2.6 72.0 1.8
Cr pb5	AV 0.386 mg/L AV 0.014 mg/L	SD 0.0035 CV SD 0.0124 CV	0.91 9509489-5 90.02 digestati
SAMPLE #39 Cr EM pb5 EM Y	REPL 504 0.327 146 0.044 EM 12286		1223 10/02/95 ruchu
SAMPLE #39 Cr EM pb5 EM Y	FEPL 508 0.338 47 0.012 EM 11975		
SAMPLE #39 Cr EM pb5 EM Y	REPL 501 0.335 58 0.016 EM 11917		
Cr pb5 Y	AV 504.3 EM AV 83.7 EM AV 12059.3 EM	SD 3.5 CV SD 54.3 CV SD 198.4 CV	0.7 64.9 1.6
Cr pb5	AV 0.334 mg/L AV 0.024 mg/L	SD 0.0058 CV SD 0.0175 CV	1.73 9509489-5C 71.96 (priginal of
SAMPLE #40 Cr EM pb5 EM Y	566 0.364	ICATE #1 mg/L mg/L window	1233 10/02/95
SAMPLE #40	REPL 599 0.386 7 -0.001 LM 12371	ICATE #2 mg/L mg/L peak-i	noisy
SAMPLE #40	577 0.372 11 0.021 1 N.	ICATE #3 mg/L mg/L	recheck
	AV 580.7 EM AV 72.0 EM AV 12389.7 EM	SD 16.8 CV SD 64.0 CV SD 23.5 CV	recheck 2.9 88.9 0.2 950948951 3.07 (original tx)
( r թե5	AV 0.3/4 mg/L AV 0.020 mg/L		3.07 (original 44) 104.02
SAMPLE #41 (1 EM pb5 EM Y	REPL 27 0.022 15 0.003 EM 9443		

SAMPL: Cr 	E M	26 -136 -14	REPL 0.021 -0.062 9362	ICATE # mg/L mg/l	<b>≥</b> window-edge
SAMPL: Or pbs	E #4: FM FM	18 43	REPL 0.014 ( -0.021 ( 559)	ICATE # ng/L ng/L	3
	Cr pb5 Y	AV -5	3.7 EM 4.7 EM 2.7 EM	SD 4.9 SD 76.2 SD 108.6	CV 20.8 CV 139.3 CV 1.1
_	Cr pb5	AV 0.	019 mg/L 027 mg/L	SD 0.0044 SD 0.0326	CV 22.88 工公AF CV 122.23 工公AF
SAMPLE Cr pb5	EM EM Y	626 2280 EM	REPL ] 0.527 m 0.961 m 9493	[CATE #1 9/L 9/L	
SAMPLE Cr pb5	#42 EM EM Y	583 2379 EM	REPL] 0.478 m 0.979 m 9731	9/L	
SAMPLE Cr pb5	#42 EM EM Y	609 2150 EM	REPLI 0.506 mg 0.895 mg 9607	4/L	
	Cr pb5 Y	AV 2269	.0 EM .7 EM .3 EM	SD 21.7 SD 114.8 SD 119.0	CV 3.6 CV 5.1 CV 1.2
	Cr ob5	AV 0.5 AV 0.9	04 mg/L 45 mg/L	SD 0.0242 SD 0.0438	CV 4.81 ICSARF
SAMPLE Cr pb5	#43 EM EM Y	2602 5285 EM	REPLI 2.000 mg 2.037 mg 10403	/L	
SAMPLE Cr pb5	#43 EM EM Y	2636 5397 EM	REPLI 2.023 mg 2.077 mg 10418	/L	
SAMPLE Cr pb5	#43 EM EM Y	2622 5317 EM	2.001 mg/ 2.034 mg/ 10480	′L	
C P Y	b5	AV 2620. AV 5333. AV 10433.	0 EM	SD 57.7 (	V 0.7 V 1.1 V 0.4
C pl	`	AV 2.00 AV 2.05	8 mg/L 0 mg/L		V 0.66 V 1.17

# QUALITY CONTROL DOCUMENTATION

### 3A WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9509826 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: 312

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	_=========	=========	=====	=====
Trichloroethene	50	U	50	100	61-145
Benzene		3	52	98	71-120
Toluene	50	0	50	100	76-127
Chlorobenzene	50	0	51	102	76-125
CIITOTODEIIZEIIE	50	0	51	102	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC L: RPD	IMITS   REC.
1,1-Dichloroethene Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50 50	51 54 52 52 52 52	102 102 104 104 104	2 4 4 2 2	14 14 14 11 13 13	===== 61-145 71-120 76-127 76-125 75-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

, QC Officer

FORM III VOA-1

3/90

# SPL Blank QC Report

page

Matrix: Aqueous Sample ID: VLBLK Batch: L950925104642 Reported on: 09/29/95 17: 2 Analyzed on: 09/26/95 10:48

Analyst: JC

## METHOD 8240 L269B01

Compound	Result	Detection Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	. 5	ug/L
Acetone	ND	100	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
Carbon Disulfide	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L

Notes

ND - Not detected.

QC Officer

## SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK

Batch: L950925104642

Reported on: 09/29/95 17:52 Analyzed on: 09/26/95 10:48

Analyst: JC

#### METHOD 8240 L269B01

Compound	Result	Detection Limit	
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	97	88-110	% Recovery
Toluene-d8	100		% Recovery
Bromofluorobenzene	95		% Recovery

Samples in Batch 9509929-01 Notes

ND - Not detected.

QC Officer

Data File: /chem/1.i/1950926.b/1269b01.d

Report Date: 02-Oct-1995 13:14

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950926.b/1269b01.d

Lab Smp Id: VLBLK

Inj Date : 26-SEP-1995 10:48

: JC Operator

Inst ID: 1.i

Smp Info : VLBLK-8240W/1X Misc Info : L269W1//L269CC1

Comment

Method : /chem/l.i/1950926.b/lvoclpw.m Meth Date : 02-Oct-1995 13:09 jimmy Quant Type: ISTD Cal File: 1269cc1.d Cal Date : 26-SEP-1995 09:54

Als bottle: 4

Dil Factor: 1.000 Integrator: HP RTE

Compound Sublist: all.sub

Target Version: 3.10

							CC	NCENTRA	TIONS
		QUANT SIG					ON-C	OLUMN	FINAL
Comp	ounds	MASS	RT	EXP RT R	EL RT	RESPONSE	(	ng)	( ug/L)
====		====	==		====		===	====	======
* 2	3 Bromochloromethane	128.00	5.019	5.011 (	1.000)	26341		250	
\$ 2	6 1,2-Dichloroethane-d4	102.00	5.786	5.787 (	1.153)	10177		240	48
* 3	2 1,4-Difluorobenzene	114.00	6.731	6.723 (	1.000)	117965		250	
\$ 4	3 Toluene-d8	98.00	8.959	8.951 (	0.821)	131146		250	50
* 5	0 Chlorobenzene-d5	117.00	10.911	10.912 (	1.000)	99071		250	
\$ 6	1 Bromofluorobenzene	95.00	12.587	12.588 (	1.154)	48400		240	48

Page 3

Data File: /chem/l.i/1950926.b/l269b01.d

Report Date: 02-Oct-1995 13:14

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1269b01.d

Lab Smp Id: VLBLK

Analysis Type: VOA Quant Type: ISTD

Operator: JC
Method File: /chem/l.i/l950926.b/lvoclpw.m
Misc Info: L269W1//L269CC1

Calibration Date: 09/26/95

Calibration Time: 0954

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	27367	63128	54734	26341	-3.75
32 1,4-Difluorobenzene	126257		252514	117965	-6.57
50 Chlorobenzene-d5	105620		211240	99071	-6.20

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.01 6.72 10.91	4.51 6.22 10.41	5.51 7.22 11.41	5.02 6.73 10.91	0.16 0.12 -0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area. RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

			: [
S			- 83
Page			17
			16
			15
}			14
		(782,51) anasmadonouflamond	- 133
.i .er: 0.25		(203 60)	12
Instrument: 1.i Operator: JC Column diameter:	269b01.d	Chlorobenzene-d5 (10,911)	- ‡
Inst Oper Col	/chem/l.i/1950926.b/1269b01.d		10
	hem/1.i/19	\(\(\frac{1}{2}\) \(\frac{1}{2}\) \(\frac{1}2\) \(\frac{1}{2}\) \(\frac{1}2\) \(\frac{1}2\) \(\frac{1}2\) \(\frac{1}2\) \(\fr	- 6
	9/		- co
		(227,43) eneszeedonoulitű-b <sup>1</sup> ,1	
ъ.		(387,2) 4b-ansAtaonolAbiU-S,1-	- u
.b/1269b01		-Bromochloromethane (5,010)	- ៤
1/1950926. 10:48 3240W/1X o5ms,0.25u			: : :
Data File: /chem/l.i/1950926.b/1269b01.d Date : 26-SEP-1995 10:48 Client ID: Sample Info: VLBLK-8240W/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0.25u df			
ata File: ate : 26-9 lient ID: ample Info urge Volur olumn pham			- 6
មម្ពល់ប្ល		1.8- 1.6- 1.1- 1.1- 1.1- 1.1- 1.1- 0.0- 0.0- 0.0	

Data File: /chem/1.i/1950926.b/1269bf1.d

Date: 26-SEP-95 09:38

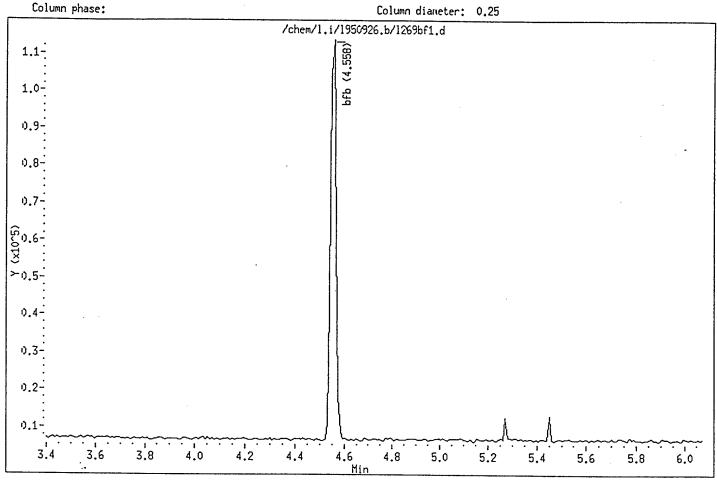
Client ID:

Sample Info: 50 NG BFB

Instrument: 1.i

Operator: JC

Column diameter: 0.25



Page 1

Data File: /chem/l.i/1950926.b/1269bf1.d

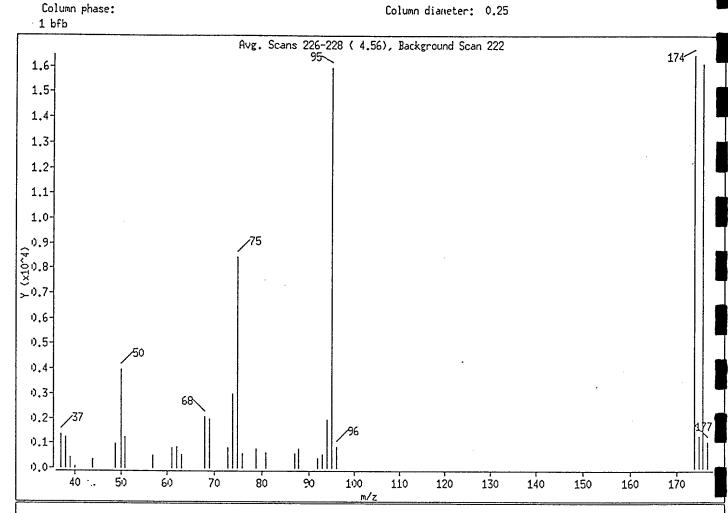
Date: 26-SEP-95 09:38

Client ID:

Sample Info: 50 NG BFB

Instrument: 1.i

Operator: JC



m/e	ION ABUNDANCE CRITERIA		≭ RELATIVE     ABUNDANCE	
1				+ 
1 95	Base Peak, 100% relative abundance	1	100.00	1
1 50	15.00 - 40.00% of mass 95	1	24.94	1
l 75	30.00 - 60.00% of mass 95	i	52.92	1
1 96	5.00 - 9.00% of mass 95	1	5.30	i
1 173	Less than 2.00% of mass 174	1	0.00 ( 0.00)	1
1 174	50.00 - 120.00% of mass 95	I	103.06	i
1 175	5.00 - 9.00% of mass 174	1	8.02 ( 7.78)	I
I 176	95.00 - 101.00% of mass 174	1	100,76 ( 97,77)	!
1 177	5.00 - 9.00% of mass 176	1	6.63 ( 6.58)	1

Data File: /chem/l.i/1950926.b/1269bf1.d

Date : 26-SEP-95 09:38

Client ID:

Sample Info: 50 NG BFB

Instrument: 1.i

Operator: JC

Column phase:

Column diameter: 0.25

Data File: 1269bf1.d

Spectrum: Avg. Scans 226-228 ( 4.56), Background Scan 222

Largest m/z: 173.95 Number of peaks: 31

+-	m/z	Υ	m/z	Y	m/z	Y m/z	Υ
	36.95 37.95 38.95 39.95 44.00	1366   1247   421   83   361	56.95 60.95 61.95 63.00 68.00	511   831   862   544   2059	74.95 75.95 78.85 80.85 87.00	8451   94.05 572   94.95 779   95.95 609   173.95 567   174.95	1954   15968   846   16456   1280
     +-	48.90 50.00 50.90	964   3983   1251	68.90 72.95 73.95	1966   826   2979	87.90 92.00 92.95	794   175.85 397   176.85 551	16090   1059   

Report Date : 17-Sep-1995 06:24

#### SPL Labs

# INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-1995 08:03 End Cal Date : 16-SEP-1995 09:24 Quant Method : ISTD

Quant Method : ISTD
Origin : Included
Target Version : 3.10
Integrator : HP RTE

Method file : /chem/l.i/1950916.b/lvoclpw.m

Cal Date : 17-Sep-1995 06:22 jimmy

Curve Type : Average

# Calibration File Names:

Level 1: /chem/l.i/1950916.b/l259iw1.d Level 2: /chem/l.i/1950916.b/l259iw2.d Level 3: /chem/l.i/1950916.b/l259iw3.d Level 4: /chem/l.i/1950916.b/l259iw4.d Level 5: /chem/l.i/1950916.b/l259iw5.d

1		50	100	250	500	1 1000		
1	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	!     RRF	
=:		:= =======	=======					% RSD
ļ	1 Chloromethane	2.60567	2.68763	2.44752				
	2 Vinyl Chloride	2.11276						
	3 Bromomethane	1.38366	•	,			,	
	4 Chloroethane	1.23162						7.49
	7 Trichlorofluoromethane	1.14748		,,			'	
	8 Acetone	0.33275						
	11 1,1-Dichloroethene	1.10358	•	•		,		
	13 Methylene Chloride	1.56999	,		•			4.49
	14 Carbon Disulfide	5.32844			•	- 1	1	3.75
	15 trans-1,2-Dichloroethene	1.27352				5.37308		3.31
	17 1,1-Dichloroethane	2.97817						3.26
	18 1,2-Dichloroethene (total)	1.57140	,,	•	2.84313		3.00096	3.35
	19 Vinyl Acetate	3.81691			1.56106	1.62844	1.61554	2.89
	20 2-Butanone	2.76782	,,		,	3.35604	3.65794	9.19
	21 cis-1,2-Dichloroethene	1.86929	•			2.31914	2.23702	25.34
	24 Chloroform	3.55274	,	•	1.89844	1.94869	1.94187	2.97
	27 1,1,1-Trichloroethane	= -		3.50896	3.36662	3.42723	3.50279	3.22
	28 1,2-Dichloroethane	0.46479	•		0.45307	0.45973	0.46606	2.45
	30 Benzene	3.20127		3.22792	3.12683	3.10296	3.20378	3.16
	31 Carbon Tetrachloride	1.53201		1.50119	1.43590	1.43014	1.48444	3.25
	34 1,2-Dichloropropane	0.37025		0.37025	0.35819	0.37649	0.36938	1.830
	35 Trichloroethene	0.46988		0.46193	0.44295	0.45017	0.45921	2.68
	37 Bromodichloromethane	0.32770		0.33926	0.33277	0.33907	0.33743	2.304
		0.49142		0.49094	0.47597	0.48867	0.48623	1.319
	39 2-Chloroethylvinylether	0.25020	0.27142	0.28070	0.28948	0.28961	0.27628	5.935
	40 4-Methyl-2-Pentanone	0.77578	0.85371	0.57778	0.82101	0.80042	0.76574	14.220
	41 cis-1,3-Dichloropropene	0.54314	0.57247	0.59188	0.57908	0.58977	0.57527	3.412
	42 trans-1,3-Dichloropropene	0.44593	0.47671	0.49514	0.48909	0.51153	0.48368	5.075
_		1	ı	1	i	,		2.375

#### SPL Labs

# INITIAL CALIBRATION DATA

Start Cal Date : 16-SEP-1995 08:03 Ind Cal Date : 16-SEP-1995 09:24

Quant Method : ISTD
Origin : Included
Carget Version : 3.10
Integrator : HP RTE

Method file : /chem/l.i/1950916.b/lvoclpw.m

lal Date : 17-Sep-1995 06:22 jimmy

urve Type : Average

ŀ		1	50 <b>j</b>	100	250	500	1000		
	Compound	1	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
==:	=======================================	=   :		******	=======	======	========	========	========
	44 Toluene	1	0.92961	0.95755	0.99358	0.93190	0.94144	0.95081	2.768
•	45 1,1,2-Trichloroethane	ı	0.30466	0.31005	0.29616	0.29293	0.28989	0.29874	2.810
_	46 2-Hexanone	1	0.83561	0.90997	0.44224	0.90492	0.87731	0.79401	•
	47 Dibromochloromethane		0.32577	0.33194	0.33135	0.32835	0.33714	0.33091	1.291
	49 Tetrachloroethene		0.35709	0.37277	0.36238	0.34713	0.35757	0.35939	
	52 Chlorobenzene	1	1.01860	1.03586	1.04675	0.99109	0.99408	1.01728	•
М	53 Xylene (Total)	Τ	0.58514	0.61813	0.63669	0.59870	0.59942	0.60762	•
	54 Ethylbenzene	1	0.46066	0.49386	0.50170	0.48448	0.49127	0.486391	•
	55 m,p-Xylene(s)	j	0.58579	0.61512	0.63813	0.59855	0.59746	0.60701	•
	56 Bromoform	ļ	0.28480	0.30121	0.31474	0.30985	0.32355	0.30683	
ľ	57 Styrene	1	0.91976	0.96255	1.03316	0.99457	1.02494	0.98699	•
,	59 o-Xylene	1	0.58383	0.62415	0.63380	0.59898	0.60334	0.60882	•
	60 1,1,2,2-Tetrachloroethane	1	0.56368	0.57927	0.58027	0.55687	0.54460	0.56494	•
==		==	=======	=========	=======	========		========	
ı	26 1,2-Dichloroethane-d4		0.39403	0.42078	0.42097	0.42205	0.43032	0.41763	3.297
\$	43 Toluene-d8	İ	1.23987	1.29524	1.31149	1.28819	1.27991	1.28294	•
ŝ	61 Bromofluorobenzene	1	0.49566	0.51410	0.52960	0.54393	0.53847	0.52435	•
L		. _				1	i	i	i

Data File: /chem/l.i/1950916.b/1259iw1.d Page 1

Report Date: 16-Sep-1995 09:56

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950916.b/l259iw1.d

Lab Smp Id: VSTD010

Inj Date : 16-SEP-1995 08:03

Operator : JC Inst ID: 1.i

Smp Info : VSTD010-8240W/1X
Misc Info : L259W1//L259IW3

Comment :

Method : /chem/l.i/1950916.b/lvoclpw.m

Meth Date : 16-Sep-1995 09:56 jimmy Quant Type: ISTD Cal Date : 16-SEP-1995 07:36 Cal File: 1259iw3.d

Als bottle: 3 Calibration Sample, Level: 1

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					AMOUN	TS	
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)	
******	====	==		======			
1 Chloromethane	50.00	1.675	1.675 (0.335)	15732	50	54	
2 Vinyl Chloride	62.00	1.790	1.790 (0.358)	12756	50	56	
3 Bromomethane	94.00	2.004	2.004 (0.401)	8354	50	53	
4 Chloroethane	64.00	2.067	2.067 (0.413)	7436	50	53	
7 Trichlorofluoromethane	101.00	2.405	2.405 (0.481)	6928	50	43 (M)	5- 10/as
8 Acetone	58.00	2.450	2.450 (0.490)	2009	50	56	09/16/
11 1,1-Dichloroethene	96.00	2.833	2.833 (0.567)	6663	50	47	911
13 Methylene Chloride	84.00	3.065	3.065 (0.613)	9479	50	52	
M 18 1,2-Dichloroethene (total)	96.00			18975	100	97	
14 Carbon Disulfide	76.00	3.181	3.181 (0.636)	32171	50	50	
15 trans-1,2-Dichloroethene	96.00	3.618	3.618 (0.724)	7689	50	49	
17 1,1-Dichloroethane	63.00	3.939	3.939 (0.788)	17981	50	50	
19 Vinyl Acetate	43.00	4.028	4.028 (0.806)	23045	50	52	
20 2-Butanone	43.00	4.402	4.402 (0.881)	16711	50	62	
21 cis-1,2-Dichloroethene	96.00	4.741	4.741 (0.948)	11286	50	48	
24 Chloroform	83.00	5.017	5.017 (1.004)	21450	50	51	
27 1,1,1-Trichloroethane	97.00	5.802	5.802 (0.863)	14243	50	50	
28 1,2-Dichloroethane	62.00	5.891	5.891 (1.178)	19328	50	50	
30 Benzene	78.00	6.247	6.247 (0.930)	46947	50	52	
31 Carbon Tetrachloride	117.00	6.283	6.283 (0.935)	11346	50	50	
34 1,2-Dichloropropane	63.00	7.246	7.246 (1.078)	14399	50	51	
35 Trichloroethene	130.00	7.281	7.281 (1.084)	10042	50	48	
37 Bromodichloromethane	83.00	7.469	7.469 (1.111)	15059	50	50	
39 2-Chloroethylvinylether	63.00	8.084	8.084 (1.203)	7667	50	45	
40 4-Methyl-2-Pentanone	43.00	8.306	8.306 (1.236)	23773	50	51	
41 cis-1,3-Dichloropropene	75.00	8.333	8.333 (1.240)	16644	50	47	
42 trans-1,3-Dichloropropene	75.00	8.966	8.966 (1.334)	13665	50	46	
44 Toluene	92.00	9.046	9.046 (0.829)	23984	50	49	
45 1,1,2-Trichloroethane	83.00	9.135	9.135 (1.359)	9336	50	51	

Data File: /chem/l.i/1950916.b/1259iw1.d Report Date: 16-Sep-1995 09:56

							AMOUN	rrs
		QUANT SIG					CAL-AMT	ON-COL
C	ompounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ng)
~		====	==	~~~==	=====	******		
-	46 2-Hexanone	43.00	9.519	9.519	(0.873)	21559	50	53
	47 Dibromochloromethane	129.00	9.759	9.759	(1.452)	9983	50	49
	49 Tetrachloroethene	164.00	10.107	10.107	(0.926)	9213	50	50
	52 Chlorobenzene	112.00	10.954	10.954	(1.004)	26280	50	50
	53 Xylene (Total)	106.00				45290	150	140
	54 Ethylbenzene	106.00	11.257	11.257	(1.032)	11885	50	47
	55 m,p-Xylene(s)	106.00	11.426	11.426	(1.047)	30227	100	96
	56 Bromoform	173.00	11.836	11.836	(1.085)	7348	50	46
	57 Styrene	104.00	11.890	11.890	(1.090)	23730	50	46
	59 o-Xylene	106.00	11.943	11.943	(1.095)	15063	50	48
	60 1,1,2,2-Tetrachloroethane	83.00	12.300	12.300	(1.127)	14543	50	50
	23 Bromochloromethane	128.00	4.999	4.999	(1.000)	30188	250	
	32 1,4-Difluorobenzene	114.00	6.720	6.720	(1.000)	153220	250	
*	50 Chlorobenzene-d5	117.00	10.909	10.909	(1.000)	129001	250	
	26 1,2-Dichloroethane-d4	102.00	5.775	5.775	(1.155)	2379	50	47
	43 Toluene-d8	98.00	8.948	8.948	(0.820)	31989	50	48
\$	61 Bromofluorobenzene	95.00	12.585	12.585	(1.154)	12788	50	47

C Flag Legend

- Compound response manually integrated.

because the computer integrates incorrectly.

Data File: /chem/l.i/1950916.b/l259iw1.d Page 3

Report Date: 16-Sep-1995 09:56

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Calibration Date: 09/16/95 Instrument ID: 1.i Lab File ID: 1259iw1.d

Calibration Time: 0736

Lab Smp Id: VSTD010 Level: LOW

Analysis Type: VOA
Quant Type: ISTD
Operator: JC
Method File: /chem/l.i/1950916.b/lvoclpw.m Sample Type: WATER

Misc Info: L259W1//L259IW3

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	30142 155837 130066	77918	60284 311674 260132	30188 153220 129001	0.15 -1.68 -0.82

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.00 6.72 10.90	4.50 6.22 10.40	5.50 7.22 11.40	5.00 6.72 10.91	-0.07 -0.05 0.05

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

-2 0.25 -Bromofluorobenzene (12,585) Operator: JC Column diameter: /chem/1.i/1950916.b/1259iw1.d Chicrobenzerado (10,909)+ +(Y8,957)+ 1.4-Iifludrokenzene (6.720) Data File: /chem/1.i/1950916.b/1259iw1.d
Date: 16-SEP-1995 08:03
Client ID:
Sample Info: VSTD010-8240W/1X
Purge Volume: 5.0
Column phase: 30m,hp5ms,0.25u df 1,2-Dichloroethane-d4 (5,784)+ --Bromochloromethane (4.999)+

Page 1

Data File: /chem/l.i/1950916.b/l259iw2.d

Report Date: 16-Sep-1995 09:56

## SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950916.b/l259iw2.d

Lab Smp Id: VSTD020

Inj Date : 16-SEP-1995 08:31

Operator : JC

Inst ID: 1.i Smp Info : VSTD020-8240W/1X

Misc Info : L259W1//L259IW3

Comment

Method : /chem/l.i/1950916.b/lvoclpw.m

Meth Date : 16-Sep-1995 09:56 jimmy Quant Type: ISTD

Cal Date : 16-SEP-1995 07:36 Cal File: 1259iw3.d

Als bottle: 4 Calibration Sample, Level: 2

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub Target Version: 3.10

		QUANT SIG				AMOUN	NTS
Compo	ounds	-				CAL-AMT	ON-COL
_		MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	Chloromethane	====	==		=======	======	======
	2 Vinyl Chloride	50.00	1.687	1.687 (0.337)	31055	100	110
	Bromomethane	62.00	1.794	1.794 (0.359)	25432	100	120
	Chloroethane	94.00	1.999	1.999 (0.400)	16140	100	110
	Trichlorofluoromethane	64.00	2.061	2.061 (0.412)	14380	100	110
	Acetone	101.00	2.409	2.409 (0.482)	15105	100	98
		58.00	2.471	2.471 (0.494)	4029	100	120
	1,1-Dichloroethene	96.00	2.837	2.837 (0.567)	14184	100	100
	Methylene Chloride	84.00	3.060	3.060 (0.612)	18213	100	100
	1,2-Dichloroethene (total)	96.00			38354	200	200
	Carbon Disulfide	76.00	3.185	3.185 (0.637)	63898	100	100
	trans-1,2-Dichloroethene	96.00	3.630	3.630 (0.726)	15388	100	. 100
	1,1-Dichloroethane	63.00	3.942	3.942 (0.788)	35958	100	100
	Vinyl Acetate	43.00	4.031	4.031 (0.806)	46012	100	110
	2-Butanone	43.00	4.406	4.406 (0.881)	28837	100	110
	cis-1,2-Dichloroethene	96.00	4.745	4.745 (0.948)	22966	100	100
	Chloroform	83.00	5.021	5.021 (1.004)	42272	100	100
27	1,1,1-Trichloroethane	97.00	5.814	5.814 (0.865)	29285	100	
28	1,2-Dichloroethane	62.00	5.894	5.894 (1.178)	38823	100	100
30	Benzene	78.00	6.251	6.251 (0.930)	92242		100
31	Carbon Tetrachloride	117.00	6.278	6.278 (0.934)	22515	100	100
34	1,2-Dichloropropane	63.00	7.249	7.249 (1.078)	28534	100	100
35	Trichloroethene	130.00	7.276	7.276 (1.082)		100	100
37	Bromodichloromethane	83.00	7.472	7.472 (1.111)	21099	100	100
39	2-Chloroethylvinylether	63.00	8.078	8.078 (1.202)	29324	100	100
	4-Methyl-2-Pentanone	43.00	8.310		16439	100	98
	cis-1,3-Dichloropropene	75.00	8.337	8.310 (1.236)	51707	100	110
	trans-1,3-Dichloropropene	75.00	8.970	8.337 (1.240)	34673	100	100
	Toluene	92.00	9.050	8.970 (1.334)	28873	100	98
45	1,1,2-Trichloroethane	83.00		9.050 (0.830)	48665	100	100
		03.00	9.139	9.139 (1.359)	18779	100	100

Data File: /chem/l.i/l950916.b/l259iw2.d Report Date: 16-Sep-1995 09:56

								AMOUN	TS	
		QUANT SIG					CAI	-AMT	ON-	-COL
	ompounds	MASS	RT	EXP RT	REL RT	RESPONSE	(	ng)	(	ng)
	**********	====	==	====== :			===	====	-	
I	46 2-Hexanone	43.00	9.522	9.522	(0.873)	46247		100		110
	47 Dibromochloromethane	129.00	9.763	9.763	(1.452)	20105		100		100
	49 Tetrachloroethene	164.00	10.111	10.111		18945		100		100
	52 Chlorobenzene	112.00	10.949	10.949		52645		100		
	53 Xylene (Total)	106.00			(=:002,	94245				100
	54 Ethylbenzene	106.00	11.261	11.261	(1 022)	25099		300		300
	55 m,p-Xylene(s)	106.00	11.421	11.421	-			100		100
	56 Bromoform	173.00	11.840	11.840		62524		200		200
	57 Styrene	104.00	11.893		. ,	15308		100		98
	59 o-Xylene	106.00		11.893		48919		100		98
	60 1,1,2,2-Tetrachloroethane	83.00	11.947	11.947 (		31721		100		100
	23 Bromochloromethane		12.295	12.295 (		29440		100		100
*	32 1,4-Difluorobenzene	128.00	5.003	5.003 (	•	28887		250		
	50 Chlorobenzene-d5	114.00	6.723	6.723 (	(1.000)	151419		250		
		117.00	10.904	10.904 (	(1.000)	127056		250		
	26 1,2-Dichloroethane-d4	102.00	5.779	5.779 (	(1.155)	4862		100		100
•	43 Toluene-d8	98.00	8.952	8.952 (	0.821)	65827		100		100
\$	61 Bromofluorobenzene	95.00	12.589	12.589 (	1.155)	26128		100		98

Data File: /chem/l.i/1950916.b/1259iw2.d

Report Date: 16-Sep-1995 09:56

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: l.i

Lab File ID: 1259iw2.d

Lab Smp Id: VSTD020

Analysis Type: VOA
Quant Type: ISTD
Operator: JC
Method File: /chem/l.i/1950916.b/lvoclpw.m
Misc Info: L259W1//L259IW3

Calibration Date: 09/16/95

Calibration Time: 0736

Page 3

Level: LOW

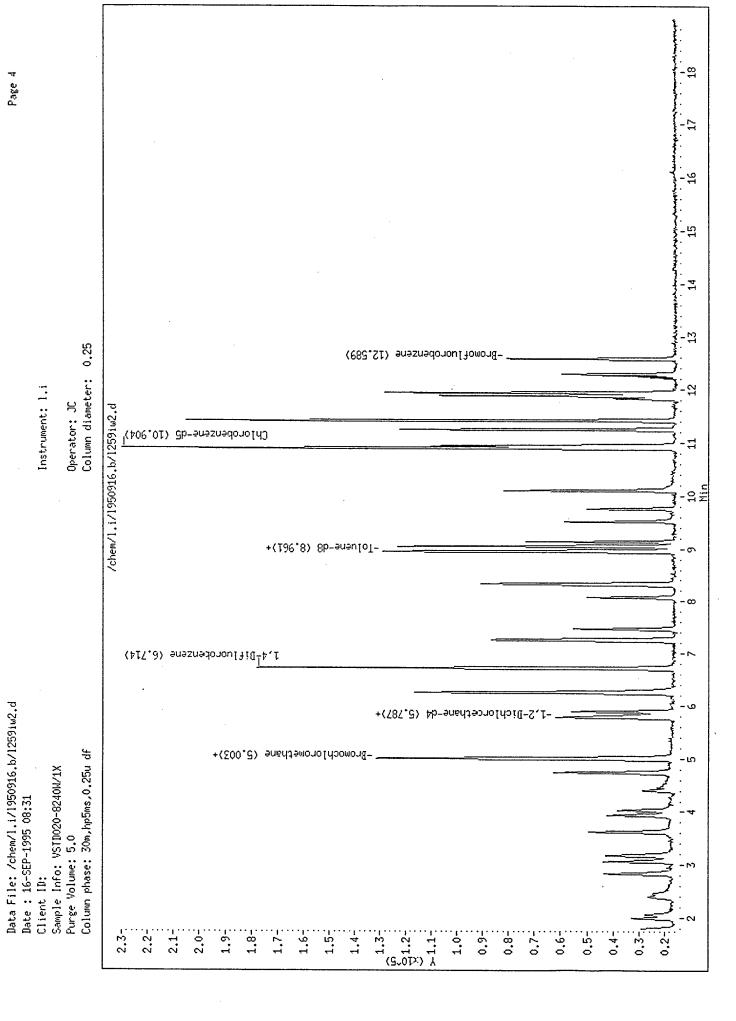
Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	30142 155837 130066	77918	60284 311674 260132	28887 151419 127056	

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.00	4.50	5.50	5.00	0.01
	6.72	6.22	7.22	6.72	0.00
	10.90	10.40	11.40	10.90	0.00

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: /chem/l.i/1950916.b/1259iw3.d Page 1

Report Date: 16-Sep-1995 09:57

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950916.b/l259iw3.d

Lab Smp Id: VSTD050

Inj Date : 16-SEP-1995 07:36

Operator : JC Inst ID: 1.i

Smp Info : VSTD050-8240W/1X
Misc Info : L259W1//L259IW3

Comment :

Method : /chem/l.i/1950916.b/lvoclpw.m

Meth Date: 16-Sep-1995 09:57 jimmy Quant Type: ISTD Cal Date: 16-SEP-1995 07:36 Cal File: 1259iw3.d

Als bottle: 2 Calibration Sample, Level: 3

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng
	====	==		======	======	=====
1 Chloromethane	50.00	1.687	1.687 (0.337)	73773	250	26
2 Vinyl Chloride	62.00	1.794	1.794 (0.359)	59856	250	26
3 Bromomethane	94.00	2.008	2.008 (0.401)	40536	250	26
4 Chloroethane	64.00	2.061	2.061 (0.412)	36546	250	26
7 Trichlorofluoromethane	101.00	2.409	2.409 (0.481)	39408	250	. 24
8 Acetone	58.00	2.462	2.462 (0.492)	4131	250	12
11 1,1-Dichloroethene	96.00	2.837	2.837 (0.567)	36078	250	26
13 Methylene Chloride	84.00	3.068	3.068 (0.613)	46148	250	25
M 18 1,2-Dichloroethene (total)	96.00			99901	500	51
14 Carbon Disulfide	76.00	3.184	3.184 (0.636)	164633	250	26
15 trans-1,2-Dichloroethene	96.00	3.630	3.630 (0.726)	39455	250	25
17 1,1-Dichloroethane	63.00	3.942	3.942 (0.788)	91064	250	25
19 Vinyl Acetate	43.00	4.031	4.031 (0.806)	117390	250	2
20 2-Butanone	43.00	4.405	4.405 (0.881)	38471	250	14
21 cis-1,2-Dichloroethene	96.00	4.744	4.744 (0.948)	60446	250	26
24 Chloroform	83.00	5.021	5.021 (1.004)	105767	250	25
27 1,1,1-Trichloroethane	97.00	5.814	5.814 (0.865)	73121	250	25
28 1,2-Dichloroethane	62.00	5.894	5.894 (1.178)	97296	250	25
30 Benzene	78.00	6.260	6.260 (0.931)	233941	250	25
31 Carbon Tetrachloride	117.00	6.286	6.286 (0.935)	57699	250	25
34 1,2-Dichloropropane	63.00	7.249	7.249 (1.078)	71986	250	25
35 Trichloroethene	130.00	7.276	7.276 (1.082)	52870	250	2
37 Bromodichloromethane	83.00	7.472	7.472 (1.111)	76507	250	25
39 2-Chloroethylvinylether	63.00	8.087	8.087 (1.203)	43743	250	25
40 4-Methyl-2-Pentanone	43.00	8.310	8.310 (1.236)	90039	250	1:
41 cis-1,3-Dichloropropene	75.00	8.336	8.336 (1.240)	92237	250	26
42 trans-1,3-Dichloropropene	75.00	8.969	8.969 (1.334)	77161	250	26
44 Toluene	92.00	9.050	9.050 (0.830)	129231	250	26
45 1,1,2-Trichloroethane	83.00	9.139	9.139 (1.359)	46152	250	25

Data File: /chem/l.i/1950916.b/1259iw3.d Report Date: 16-Sep-1995 09:57

						AMOUN	TS
		QUANT SIG		·		CAL-AMT	ON-COL
S.C	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
==		====	==		*======	======	3=====
	46 2-Hexanone	43.00	9.522	9.522 (0.873)	<b>57</b> 520	250	140
	47 Dibromochloromethane	129.00	9.763	9.763 (1.452)	51637	250	250
	49 Tetrachloroethene	164.00	10.110	10.110 (0.927)	47133	250	250
	52 Chlorobenzene	112.00	10.957	10.957 (1.005)	136147	250	260
	53 Xylene (Total)	106.00			248434	<b>7</b> 50	780
	54 Ethylbenzene	106.00	11.260	11.260 (1.033)	65254	250	260
	55 m,p-Xylene(s)	106.00	11.430	11.430 (1.048)	165998	^ 500	520
	56 Bromoform	173.00	11.840	11.840 (1.086)	40937	250	260
	57 Styrene	104.00	11.893	11.893 (1.091)	134379	250	260
_	59 o-Xylene	106.00	11.947	11.947 (1.096)	82436	250	260
_	60 1,1,2,2-Tetrachloroethane	83.00	12.294	12.294 (1.128)	75474	250	260
	23 Bromochloromethane	128.00	5.003	5.003 (1.000)	30142	250	
Ż	32 1,4-Difluorobenzene	114.00	6.723	6.723 (1.000)	155837	250	
*	50 Chlorobenzene-d5	117.00	10.904	10.904 (1.000)	130066	250	
	26 1,2-Dichloroethane-d4	102.00	5.778	5.778 (1.155)	12689	250	250
	43 Toluene-d8	98.00	8.952	8.952 (0.821)	170580	250	260
\$	61 Bromofluorobenzene	95.00	12.588	12.588 (1.155)	68883	250	250

Page 3

Data File: /chem/l.i/1950916.b/1259iw3.d

Report Date: 16-Sep-1995 09:57

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1259iw3.d Calibration Date: 09/16/95 Calibration Time: 0736

Lab Smp Id: VSTD050 Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

Operator: JC

Method File: /chem/l.i/1950916.b/lvoclpw.m

Misc Info: L259W1//L259IW3

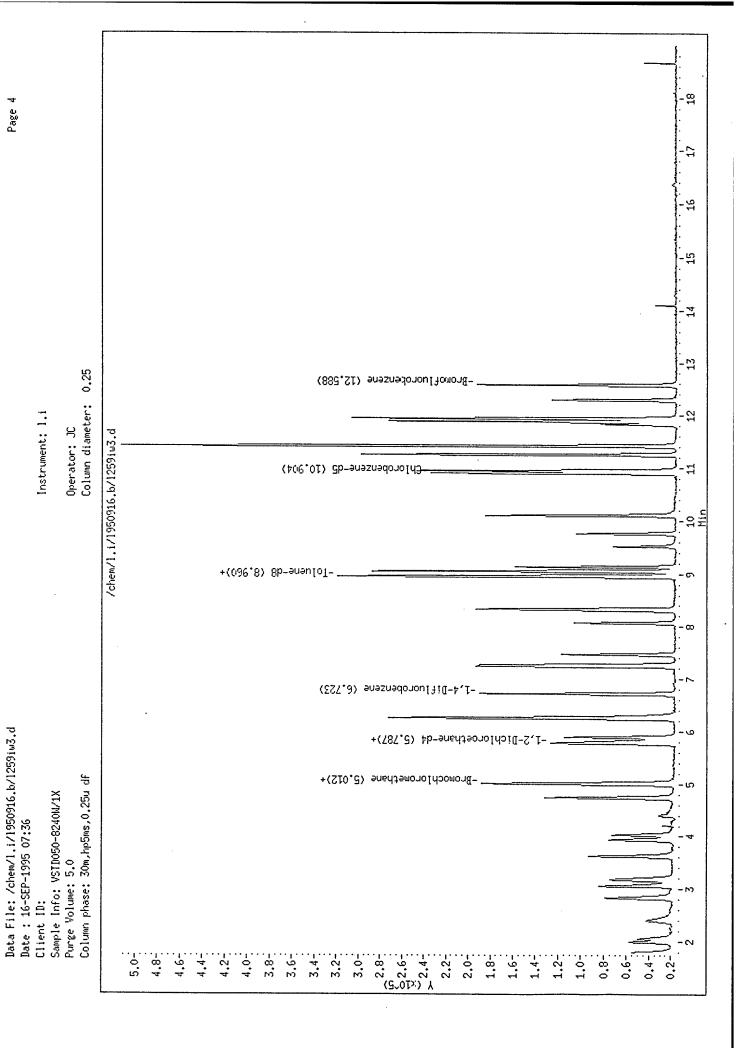
			LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	========	=======	======
23 Bromochloromethane	30142	15071		30142	
32 1,4-Difluorobenzene	155837	77918	311674	155837	0.00
50 Chlorobenzene-d5	130066	65033	260132	130066	0.00

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.00 6.72 10.90	4.50 6.22 10.40	5.50 7.22 11.40	5.00 6.72 10.90	0.00

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i



Page 1

Data File: /chem/l.i/1950916.b/1259iw4.d

Report Date: 16-Sep-1995 09:57

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950916.b/l259iw4.d

Lab Smp Id: VSTD100

Inj Date : 16-SEP-1995 08:59

Operator : JC

Smp Info : VSTD100-8240W/1X

Misc Info : L259W1//L259IW3

Comment

Method /chem/1.i/1950916.b/lvoclpw.m

Meth Date: 16-Sep-1995 09:57 jimmy

Cal Date : 16-SEP-1995 07:36 Quant Type: ISTD Cal File: 1259iw3.d

Inst ID: 1.i

Als bottle: 5

Calibration Sample, Level: 4

Dil Factor: 1.000 Integrator: HP RTE

Compound Sublist: normal.sub

AMOUNTS

Target Version:

QUANT SIG CAL-AMT ON-COL Compounds MASS RT EXP RT REL RT RESPONSE ( ng) ( == ----- -----======= -----1 Chloromethane 50.00 1.694 1.694 (0.338) 129697 500 450 2 Vinyl Chloride 62.00 1.792 1.792 (0.358) 101101 500 440 3 Bromomethane 94.00 2.006 2.006 (0.400) 76451 500 480 4 Chloroethane 64.00 2.069 2.069 (0.413) 64879 500 460 7 Trichlorofluoromethane 101.00 2.407 2.407 (0.480) 86612 500 530 8 Acetone 58.00 2.470 2.470 (0.493) 19249 500 540 11 1,1-Dichloroethene 96.00 2.844 2.844 (0.568) 68386 500 480 13 Methylene Chloride 84.00 3.067 (0.612) 3.067 86942 500 470 M 18 1,2-Dichloroethene (total) 96.00 189175 1000 970 14 Carbon Disulfide 76.00 3.183 3.183 (0.635) 307046 500 470 15 trans-1,2-Dichloroethene 96.00 3.629 3.629 (0.724) 74145 500 470 17 1,1-Dichloroethane 63.00 3.949 3.949 (0.788) 172271 500 470 19 Vinyl Acetate 43.00 4.039 4.039 (0.806) 196324 500 440 20 2-Butanone 43.00 4.404 4.404 (0.879) 140946 500 520 21 cis-1,2-Dichloroethene 96.00 4.752 (0.948) 4.752 115030 500 490 24 Chloroform 83.00 5.028 5.028 (1.004) 203990 500 480 27 1,1,1-Trichloroethane 97.00 5.812 (0.865) 5.812 140737 500 490 28 1,2-Dichloroethane 62.00 5.893 5.893 (1.176) 189461 500 490 30 Benzene 78.00 6.258 (0.931) 6.258 446030 500 480 31 Carbon Tetrachloride 117.00 6.285 6.285 (0.935) 111263 500 480 34 1,2-Dichloropropane 63.00 7.248 7.248 (1.078) 137594 500 480 35 Trichloroethene 130.00 7.283 7.283 (1.084) 103367 500 490 37 Bromodichloromethane 83.00 7.470 7.470 (1.111) 147851 500 490 39 2-Chloroethylvinylether 63.00 8.086 8.086 (1.203) 89920 500 520 40 4-Methyl-2-Pentanone 43.00 8.308 8.308 (1.236) 255028 500 540 41 cis-1,3-Dichloropropene 75.00 8.344 8.344 (1.241) 179878 500 500 42 trans-1,3-Dichloropropene 75.00 8.968 8.968 (1.334) 151926 500 500 44 Toluene 92 00 9.057 9.057 (0.830). 245635 500 490 45 1,1,2-Trichloroethane 83.00 9.137 9.137 (1.359) 90992 500 490

AMOUNTS

Data File: /chem/l.i/1950916.b/1259iw4.d Report Date: 16-Sep-1995 09:57

						1110011	
		QUANT SIG				CAL-AMT	ON-COL
aga	ounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
====		====	==	=======================================	**=====		======
<b>1</b> 46	2-Hexanone	43.00	9.521	9.521 (0.873)	238525	500	570
47	Dibromochloromethane	129.00	9.761	9.761 (1.452)	101994	500	500
49	Tetrachloroethene	164.00	10.109	10.109 (0.926)	91499	500	480
52	Chlorobenzene	112.00	10.956	10.956 (1.004)	261238	500	490
53	Xylene (Total)	106.00			473423	1500	1500
54	Ethylbenzene	106.00	11.259	11.259 (1.032)	127702	500	500
55	m,p-Xylene(s)	106.00	11.428	11.428 (1.047)	315540	1000	990
56	Bromoform	173.00	11.838	11.838 (1.085)	81672	500	500
57	Styrene	104.00	11.892	11.892 (1.090)	262154	500	500
59	o-Xylene	106.00	11.945	11.945 (1.095)	157883	500	490
<b>—</b> 60	1,1,2,2-Tetrachloroethane	83.00	12.302	12.302 (1.127)	146782	500	490
23	Bromochloromethane	128.00	5.010	5.010 (1.000)	30296	250	
<del>₹</del> 32	2 1,4-Difluorobenzene	114.00	6.722	6.722 (1.000)	155314	250	
* 50	Chlorobenzene-d5	117.00	10.911	10.911 (1.000)	131793	250	
26	1,2-Dichloroethane-d4	102.00	5.786	5.786 (1.155)	25573	500	500
43	Toluene-d8	98.00	8.950	8.950 (0.820)	339549	500	500
\$ 61	Bromofluorobenzene	95.00	12.587	12.587 (1.154)	143373	500	520

Data File: /chem/l.i/1950916.b/1259iw4.d Page 3

Report Date: 16-Sep-1995 09:57

#### SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: l.i Lab File ID: 1259iw4.d Lab Smp Id: VSTD100

Calibration Date: 09/16/95 Calibration Time: 0736

Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

Operator: JC Method File: /chem/l.i/1950916.b/lvoclpw.m

Misc Info: L259W1//L259IW3

COMPOUND  ===================================	ANDARD ====== 30142 155837 130066	AREA LOWER ======= 15071 77918 65033	00201	SAMPLE ======= 30296 155314 131793	% DIFF ====== 0.51 -0.34 1.33
-----------------------------------------------	-----------------------------------------------	-----------------------------------------------------	-------	------------------------------------------------	-------------------------------------------

COMPOUND  ===================================	STANDARD ===================================	RT LOWER ======= 4.50 6.22 10.40	LIMIT   UPPER ======= 5.50 7.22 11.40	SAMPLE ======= 5.01 6.72 10.91	% DIFF ====== 0.15 -0.02 0.07
-----------------------------------------------	-------------------------------------------------	-------------------------------------------------	------------------------------------------------------	--------------------------------------------	-------------------------------------------

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

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Instrument: 1.i

Data File: /chem/l.i/1950916.b/12591w4.d Date : 16-SEP-1995 08:59

Data File: /chem/l.i/1950916.b/1259iw5.d

Report Date: 16-Sep-1995 09:57

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950916.b/1259iw5.d

Lab Smp Id: VSTD200

Inj Date : 16-SEP-1995 09:24

Operator : JC Inst ID: 1.i

Smp Info : VSTD200-8240W/1X
Misc Info : L259W1//L259IW3

Comment

Method : /chem/l.i/1950916.b/lvoclpw.m

Meth Date : 16-Sep-1995 09:57 jimmy Quant Type: ISTD Cal Date : 16-SEP-1995 07:36 Cal File: 1259iw3.d

Als bottle: 6 Calibration Sample, Level: 5

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

		•			AMOUNTS		
	QUANT SIG				CAL-AMT	ON-COL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)	
	====	==	===== =====		======		
1 Chloromethane	50.00	1.693	1.693 (0.337)	255071	1000	870	
2 Vinyl Chloride	62.00	1.800	1.800 (0.359)	178769	1000	770	
3 Bromomethane	94.00	2.014	2.014 (0.401)	142197	1000	890	
4 Chloroethane	64.00	2.076	2.076 (0.414)	130280	1000	910	
7 Trichlorofluoromethane	101.00	2.424	2.424 (0.483)	184859	1000	1100	
8 Acetone	58.00	2.468	2.468 (0.492)	42534	1000	1200	
11 1,1-Dichloroethene	96.00	2.852	2.852 (0.568)	147028	1000	1000	
13 Methylene Chloride	84.00	3.075	3.075 (0.613)	184515	1000	990	
M 18 1,2-Dichloroethene (total)	96.00			398680	2000	2000	
14 Carbon Disulfide	76.00	3.199	3.199 (0.638)	657729	1000	1000	
15 trans-1,2-Dichloroethene	96.00	3.636	3.636 (0.725)	160137	1000	1000	
17 1,1-Dichloroethane	63.00	3.957	3.957 (0.789)	373405	1000	1000	
19 Vinyl Acetate	43.00	4.046	4.046 (0.806)	410820	1000	920	
20 2-Butanone	43.00	4.412	4.412 (0.879)	283891	1000	1000	
21 cis-1,2-Dichloroethene	96.00	4.750	4.750 (0.947)	238543	1000	1000	
24 Chloroform	83.00	5.036	5.036 (1.004)	419534	1000	980	
27 1,1,1-Trichloroethane	97.00	5.820	5.820 (0.865)	290295	1000	990	
28 1,2-Dichloroethane	62.00	5.900	5.900 (1.176)	379839	1000	970	
30 Benzene	78.00	6.266	6.266 (0.931)	903062	1000	960	
31 Carbon Tetrachloride	117.00	6.293	6.293 (0.935)	237732	1000	1000	
34 1,2-Dichloropropane	63.00	7.255	7.255 (1.078)	284257	1000	980	
35 Trichloroethene	130.00	7.282	7.282 (1.082)	214103	1000	1000	
37 Bromodichloromethane	83.00	7.478	7.478 (1.111)	308571	1000	1000	
39 2-Chloroethylvinylether	63.00	8.084	8.084 (1.201)	182874	1000	1000	
40 4-Methyl-2-Pentanone	43.00	8.307	8.307 (1.234)	505423	1000	1000	
41 cis-1,3-Dichloropropene	75.00	8.343	8.343 (1.240)	372410	1000	1000	
42 trans-1,3-Dichloropropene	75.00	8.976	8.976 (1.334)	323006	1000	1000	
44 Toluene	92.00	9.056	9.056 (0.830)	503441	1000	990	
45 1.1.2-Trichloroethane	83.00	9.136	9.136 (1.358)	183049	1000	970	

Data File: /chem/l.i/l950916.b/l259iw5.d Report Date: 16-Sep-1995 09:57

						AMOUN	TS
ı		QUANT SIG				CAL-AMT	ON-COL
C	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
=	=======================================	====	==	=========			
	46 2-Hexanone	43.00	9.519	9.519 (0.873)	469147	1000	1100
ľ	47 Dibromochloromethane	129.00	9.769	9.769 (1.452)	212888	1000	1000
	49 Tetrachloroethene	164.00	10.108	10.108 (0.926)	191213	1000	990
	52 Chlorobenzene	112.00	10.954	10.954 (1.004)	531590	1000	980
М	53 Xylene (Total)	106.00			961636	3000	3000
	54 Ethylbenzene	106.00	11.258	11.258 (1.032)	262707	1000	1000
	55 m,p-Xylene(s)	106.00	11.427	11.427 (1.047)	638995	2000	2000
B	56 Bromoform	173.00	11.837	11.837 (1.085)	173020	1000	1000
İ	57 Styrene	104.00	11.890	11.890 (1.090)	548092	1000	1000
•	59 o-Xylene	106.00	11.944	11.944 (1.095)	322641	1000	990
_	60 1,1,2,2-Tetrachloroethane	83.00	12.300	12.300 (1.127)	291227	1000	960
ŀ	23 Bromochloromethane	128.00	5.018	5.018 (1.000)	30603	250	200
ŀ	32 1,4-Difluorobenzene	114.00	6.729	6.729 (1.000)	157862	250	
*	50 Chlorobenzene-d5	117.00	10.910	10.910 (1.000)	133689	250	
Þ	26 1,2-Dichloroethane-d4	102.00	5.784	5.784 (1.153)	52676	1000	1000
ŀ	43 Toluene-d8	98.00	8.958	8.958 (0.821)	684442	1000	1000
\$	61 Bromofluorobenzene	95.00	12.586	12.586 (1.154)	287948	1000	1000
				, ,		2000	1000

Data File: /chem/l.i/1950916.b/1259iw5.d

Report Date: 16-Sep-1995 09:57

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1259iw5.d Lab Smp Id: VSTD200 Calibration Date: 09/16/95 Calibration Time: 0736

Calibration lime

Analysis Type: VOA

Level: LOW Sample Type: WATER

Quant Type: ISTD Operator: JC

Method File: /chem/l.i/1950916.b/lvoclpw.m

Misc Info: L259W1//L259IW3

	AREA LIMIT				
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
23 Bromochloromethane	30142	15071	60284	30603	1.53
32 1,4-Difluorobenzene	155837	77918	311674	157862	1.30
50 Chlorobenzene-d5	130066	65033	260132	133689	2.79

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	========	======
23 Bromochloromethane	5.00	4.50	5.50	5.02	0.30
32 1,4-Difluorobenzene	6.72	6.22	7.22	6.73	0.09
50 Chlorobenzene-d5	10.90	10.40	11.40	10.91	0.06
					*

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/l.i/1950916.b/12591w5.d Date : 16-SEP-1995 09:24

Client ID:

Data File: /chem/l.i/1950926.b/1269cc1.d

Report Date: 26-Sep-1995 10:28

# SPL Labs

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: l.i Lab File ID: 1269cc1.d Analysis Type: WATER Lab Sample ID: VSTD050 Injection Date: 26-SEP-1995 09:54

Init. Calibration Date(s): 09/16/95 09/16/95
Init. Calibration Times: 08:03 09:24
Method File: /chem/l.i/1950926.b/lvoclpw.m

Quant Type: ISTD

				MIN		MAX
CON	4POUND	RRF	RF250	RRF	₹D	%D 
]	1 Chloromethane	2.393	2.300 0	0.010	3.9	40.
2	Vinyl Chloride	1.886	2.015	.100		25.
3	3 Bromomethane	1.310	1.376	.100	5.1	25.
4	Chloroethane	1.165				[ 40.
7	7 Trichlorofluoromethane	1.340	1.770	0.010		40.
ε	3 Acetone	0.297	0.243	0.010	18.0	100.
11	l 1,1-Dichloroethene	1.172	1.095	.100	6.6	25.
13	3 Methylene Chloride	1.524			2.5	40.
18	3 1,2-Dichloroethene (total)	1.616	1.389	0.010	14.0	40.
14	1 Carbon Disulfide	5.352	5.253 0	0.010	1.9	40.
15	trans-1,2-Dichloroethene	1.289	1.214 0	0.010	5.9	40.
17	7 1,1-Dichloroethane	3.001	2.964   0	.200	1.2	25.
19	9 Vinyl Acetate	3.658	3.755 0	0.010	2.7	100.
20	2-Butanone	2.237	1.101 0	0.010	50.8	100.
21	l cis-1,2-Dichloroethene	1.942	1.565 0	0.010	19.4	25.
24	Chloroform	3.503	3.152 0	200	10.0	25.
27	7 1,1,1-Trichloroethane	0.466	0.494 0	0.100	6.0	25.
28	3 1,2-Dichloroethane	3.204	2.801 0	.100	12.6	25.
30	) Benzene	1.484	1.397	.500	5.9	25.
31	l Carbon Tetrachloride	0.369	0.434 0	100	17.5	25.
34	1,2-Dichloropropane	0.459	0.418 0	0.010	9.0	25.
35	5 Trichloroethene	0.337	0.325	3.300	3.7	25.
37	7 Bromodichloromethane	0.486	0.500[0	200	2.8	25.
3 9	9 2-Chloroethylvinylether	0.276	0.226 0	0.010	18.2	100.
40	0 4-Methyl-2-Pentanone	0.766	0.565	0.010	26.2	100.
4 1	l cis-1,3-Dichloropropene	0.575	0.570	0.100	0.9	25.
4 2	2 trans-1,3-Dichloropropene	0.484	0.521	0.100	7.8	25.
44	1 Toluene	0.951	0.892]0	0.400	6.2	25.
45	5 1,1,2-Trichloroethane	0.299	•	•		25.
	5 2-Hexanone	0.794				100.
	7 Dibromochloromethane	0.331	•	•		25.
	9 Tetrachloroethene	0.359	•	•		25.
	2 Chlorobenzene	1.017	•	•		25.
	3 Xylene (Total)	0.608	•	•		25.
	4 Ethylbenzene	0.486		•		25.
	5 m,p-Xylene(s)	0.607	•	•		25.
	6 Bromoform	0.307				25.
	7 Styrene	0.987				25.
	9 o-Xylene	0.609				25.
6	0 1,1,2,2-Tetrachloroethane	0.565	0.561	0.300	0.7	25.

Data File: /chem/l.i/1950926.b/1269cc1.d

Report Date: 26-Sep-1995 10:28

# SPL Labs

# CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 1.i Lab File ID: 1269cc1.d Analysis Type: WATER Lab Sample ID: VSTD050

Injection Date: 26-SEP-1995 09:54

Init. Calibration Date(s): 09/16/95 09/16/95 Init. Calibration Times: 08:03 Method File: /chem/l.i/1950926.b/lvoclpw.m

Quant Type: ISTD

COMPOUND	RRF	RF250	MIN     RRF		MAX 10
\$ 26 1,2-Dichloroethane-d4 \$ 43 Toluene-d8 \$ 61 Bromofluorobenzene	0.418	1.319	  0.010   0.010   0.010	4.7	40.0 40.0 40.0

Data File: /chem/l.i/1950926.b/1269cc1.d

Report Date: 02-Oct-1995 13:09

## SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950926.b/1269cc1.d

Lab Smp Id: VSTD050

Inj Date : 26-SEP-1995 09:54

Operator : JC Inst ID: 1.i

Smp Info : VSTD050-8240W/1X Misc Info : L269W1//L269CC1

Comment :

Method : /chem/l.i/1950926.b/lvoclpw.m

Meth Date: 02-Oct-1995 13:08 jimmy Quant Type: ISTD

Als bottle: 2 Continuing Calibration Sample

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

						AMOUN	ITS
		QUANT SIG				CAL-AMT	ON-COL
Compo	ounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
====		====	==	=======================================	======	======	======
;	1 Chloromethane	50.00	1.704	1.704 (0.340)	62953	250	240
:	2 Vinyl Chloride	62.00	1.802	1.802 (0.360)	55148	250	270
3	3 Bromomethane	94.00	2.025	2.025 (0.404)	37664	250	260
4	1 Chloroethane	64.00	2.078	2.078 (0.415)	32952	250	260
•	7 Trichlorofluoromethane	101.00	2.417	2.417 (0.482)	48453	250	330
. 8	3 Acetone	58.00	2.480	2.480 (0.495)	6655	250	200
1.	l 1,1-Dichloroethene	96.00	2.845	2.845 (0.568)	29959	250	230
13	B Methylene Chloride	84.00	3.077	3.077 (0.614)	40653	250	240
M 18	3 1,2-Dichloroethene (total)	96.00			76042	500	430
14	Carbon Disulfide	76.00	3.184	3.184 (0.635)	143748	250	240
1.9	trans-1,2-Dichloroethene	96.00	3.629	3.629 (0.724)	33216	250	240
17	1,1-Dichloroethane	63.00	3.950	3.950 (0.788)	81129	250	250
19	Winyl Acetate	43.00	4.040	4.040 (0.806)	102775	250	260
20	2-Butanone	43.00	4.414	4.414 (0.881)	30127	250	120
2:	cis-1,2-Dichloroethene	96.00	4.753	4.753 (0.948)	42826	250	200
24	Chloroform	83.00	5.029	5.029 (1.004)	86256	250	220
27	7 1,1,1-Trichloroethane	97.00	5.813	5.813 (0.865)	62394	250	260
28	3 1,2-Dichloroethane	62.00	5.903	5.903 (1.178)	76652	250	220
30	) Benzene	78.00	6.259	6.259 (0.931)	176345	250	240
31	Carbon Tetrachloride	117.00	6.286	6.286 (0.935)	54779	250	290
34	1,2-Dichloropropane	63.00	7.249	7.249 (1.078)	52783	250	230
35	Trichloroethene	130.00	7.284	7.284 (1.084)	41027	250	240
37	Bromodichloromethane	83.00	7.471	7.471 (1.111)	63137	250	260
39	2-Chloroethylvinylether	63.00	8.086	8.086 (1.203)	28541	250	200
40	4-Methyl-2-Pentanone	43.00	8.318	8.318 (1.237)	71315	250	180
47	cis-1,3-Dichloropropene	75.00	8.345	8.345 (1.241)	71997	250	250
47	trans-1,3-Dichloropropene	75.00	8.969	8.969 (1.334)	65803	250	270
44	Toluene	92.00	9.058	9.058 (0.830)	94165	250	230
4.5	1,1,2-Trichloroethane	83.00	9.138	9.138 (1.359)	36685	250	240

Data File: /chem/l.i/1950926.b/1269cc1.d Report Date: 02-Oct-1995 13:09

			QUANT SIG				AMOUN	TS
	ompo	ounds	MASS	nm.			CAL-AMT	ON-COL
=	===:		====	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
_	46	6 2-Hexanone		==	=======================================	=======	======	======
	47	7 Dibromochloromethane	43.00	9.522	0.8737	49019	250	150
		F Tetrachloroethene	129.00	9.762	9.762 (1.452)	44141	250	- 260
		Chlorobenzene	164.00	10.110	10.110 (0.926)	35688	250	240
		Xylene (Total)	112.00	10.957	10.957 (1.004)	100430	250	230
		Ethylbenzene	106.00			179390	750	700
_		m,p-Xylene(s)	106.00	11.260	11.260 (1.032)	46717	250	230
_		Bromoform	106.00	11.429	11.429 (1.047)	119586	500	
		Styrene	173.00	11.839	11.839 (1.085)	34925	250	470
		o-Xylene	104.00	11.893	11.893 (1.090)	94018	250	270
			106.00	11.946		59804	250	220
		1,1,2,2-Tetrachloroethane	83.00	12.303	12.303 (1.127)	59263		230
		Bromochloromethane	128.00	5.011	5.011 (1.000)	27367	250	250
_		1,4-Difluorobenzene	114.00	6.723	6.723 (1.000)	126257	250	
_		Chlorobenzene-d5	117.00	10.912	10.912 (1.000)	105620	250	
		1,2-Dichloroethane-d4	102.00	5.787	5.787 (1.155)	103620	250	
		Toluene-d8	98.00	8.951	8.951 (0.820)		250	240
\$	61	Bromofluorobenzene	95.00	12.588	12.588 (1.154)	139278	250	260
						54052	250	240

Data File: /chem/l.i/1950926.b/1269ccl.d

Report Date: 26-Sep-1995 10:28

## SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1269cc1.d Lab Smp Id: VSTD050

Calibration Date: 09/26/95 Calibration Time: 0954

Page 3

Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

Operator: JC

Method File: /chem/l.i/1950926.b/lvoclpw.m

Misc Info: L269W1//L269CC1

COMPOUND ====================================	STANDARD ======= 27367 126257	LOWER ======= 13684	0 1 , 0 1	2/30/	% DIFF ===== 0.00
32 1,4-Difluorobenzene 50 Chlorobenzene-d5	126257 105620	63128 52810	9 4 7 4	27367 126257 105620	0.00 0.00 0.00

COMPOUND  ===================================	STANDARD ======== 5.01 6.72 10.91	RT LOWER ======== 4.51 6.22 10.41	LIMIT UPPER ======= 5.51 7.22 11.41	SAMPLE ======= 5.01 6.72 10.91	% DIFF ====== 0.00 0.00 0.00
-----------------------------------------------	-----------------------------------------------	--------------------------------------------------	----------------------------------------------------	--------------------------------------------	------------------------------------------

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area. RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/l.i/1950926.b/1269ccl.d Date : 26-SEP-1995 09:54 Client ID:

Report Date: 02-Oct-1995 13:14

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950926.b/l269s03.d Lab Smp Id: 9509929-01A Inj Date : 26-SEP-95 12:56 Client Smp ID: 651-001MWB

Inst ID: 1.i

Operator : JC Smp Info : 9509929-01A-8240W/1X Misc Info : L268W1/L269B01/L269CC1

Comment

Method : /chem/l.i/1950926.b/lvoclpw.m

Meth Date: 02-Oct-1995 13:09 jimmy Quant Type: ISTD Cal Date : 26-SEP-1995 09:54 Cal File: 1269cc1.d

Als bottle: 9

Dil Factor: 1.000 Integrator: HP RTE

Compound Sublist: normal.sub

Target Version: 3.10

						CONCENTRA	ATIONS
		QUANT SIG		•		ON-COLUMN	FINAL
Co	mpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
==	**=====*	====	==	=======================================	=======		======
	8 Acetone	58.00	2.488	2.480 (0.497)	839	32	6 (a)
	30 Benzene	78.00	6.259	6.259 (0.931)	50389	69	14
М	53 Xylene (Total)	106.00			1130762	4500	890 (A)
	54 Ethylbenzene	106.00	11.260	11.260 (1.032)	225490	1100	230
	55 m,p-Xylene(s)	106.00	11.429	11.429 (1.047)	1130762	4500	890 (A)
*	23 Bromochloromethane	128.00	5.011	5.011 (1.000)	26603	250	
*	32 1,4-Difluorobenzene	114.00	6.723	6.723 (1.000)	130924	250	
*	50 Chlorobenzene-d5	117.00	10.912	10.912 (1.000)	111732	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.787	5.787 (1.155)	10830	260	51
\$	43 Toluene-d8	98.00	8.960	8.951 (0.821)	148302	250	50
\$	61 Bromofluorobenzene	95.00	12.588	12.588 (1.154)	63534	280	56

## QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation (BLOQ).

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/l.i/1950926.b/1269s03.d

Report Date: 02-Oct-1995 13:14

SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

ab File ID: 1269s03.d

ab Smp Id: 9509929-01A

Analysis Type: VOA Quant Type: ISTD

perator: JC

ethod File: /chem/l.i/1950926.b/lvoclpw.m

Misc Info: L268W1/L269B01/L269CC1

Calibration Date: 09/26/95 Calibration Time: 0954 Client Smp ID: 651-001MWB

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	27367	13684	54734	26603	-2.79
32 1,4-Difluorobenzene	126257	63128	252514	130924	3.70
50 Chlorobenzene-d5	105620	52810	211240	111732	5.79

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.01 6.72 10.91	4.51 6.22 10.41	5.51 7.22 11.41	5.01 6.72 10.91	0.00

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

T UPPER LIMIT = + 0.50 minutes of internal standard RT. T LOWER LIMIT = - 0.50 minutes of internal standard RT.

Date : 26-SEP-95 12:56 Client ID: 651-001MWB

Instrument: 1.i

Sample Info: 9509929-01A-8240W/1X

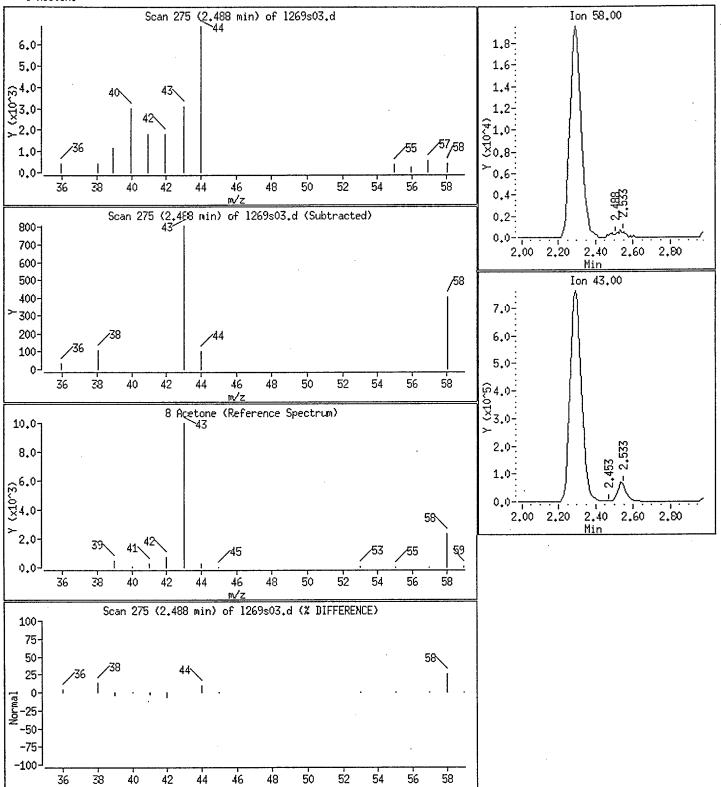
Purge Volume: 5.0

Operator: JC

Column phase: 30m,hp5ms,0.25u df

Column diameter: 0.25





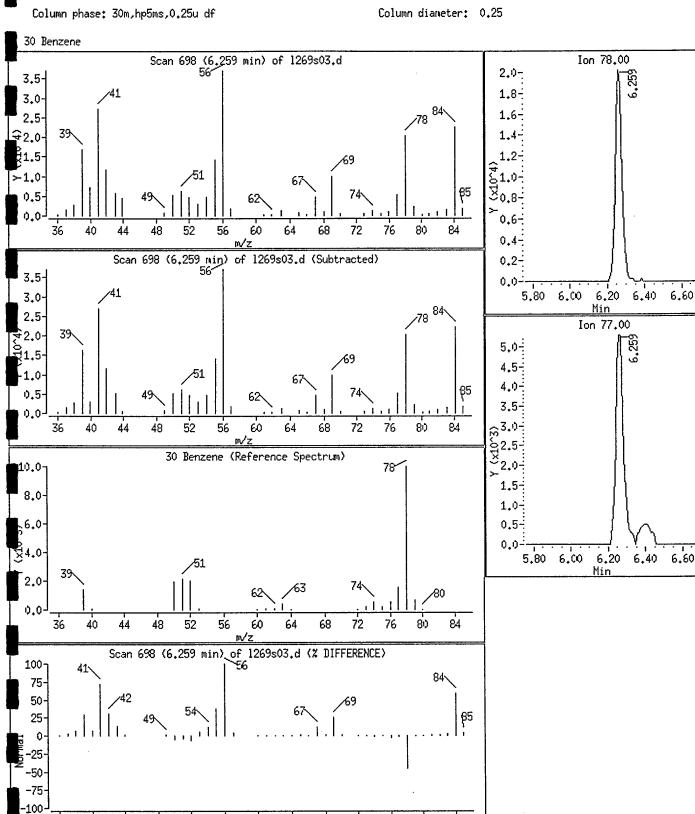
Date: 26-SEP-95 12:56 Client ID: 651-001MWB

Instrument: 1.i

Sample Info: 9509929-01A-8240W/1X

Purge Volume: 5.0

Operator: JC



Date: 26-SEP-95 12:56 Client ID: 651-001MWB

Instrument: 1.i

Sample Info: 9509929-01A-8240W/1X

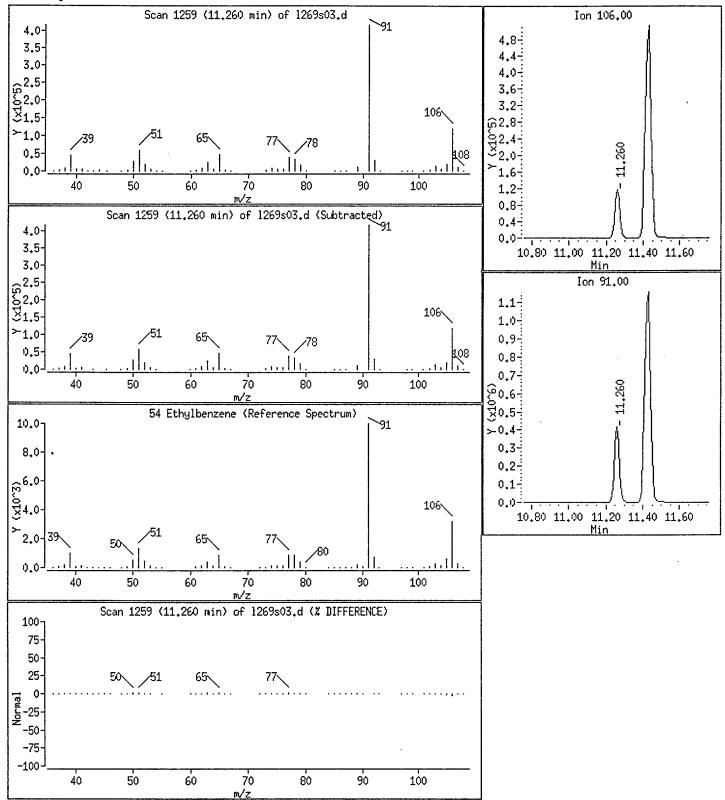
Column phase: 30m,hp5ms,0.25u df

Purge Volume: 5.0

Operator: JC

Column diameter: 0.25

54 Ethylbenzene



Date: 26-SEP-95 12:56 Client ID: 651-001MWB

Sample Info: 9509929-01A-8240W/1X

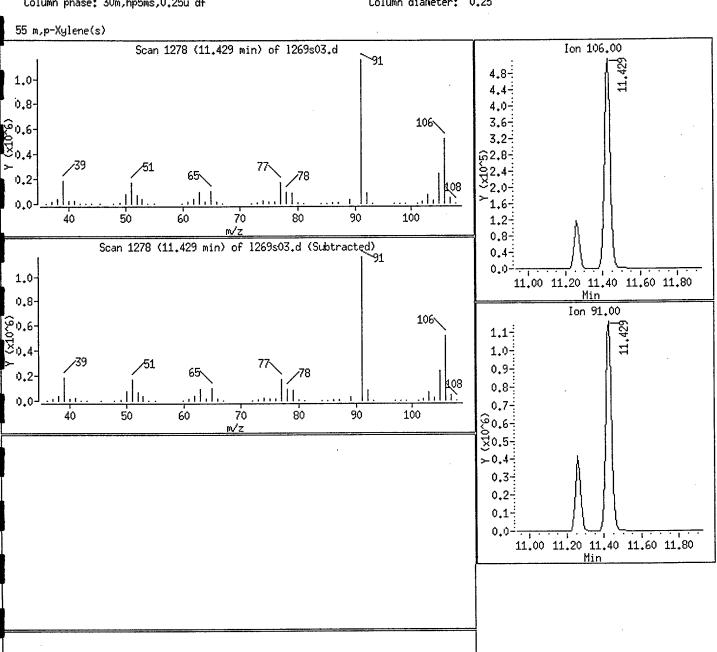
Purge Volume: 5.0

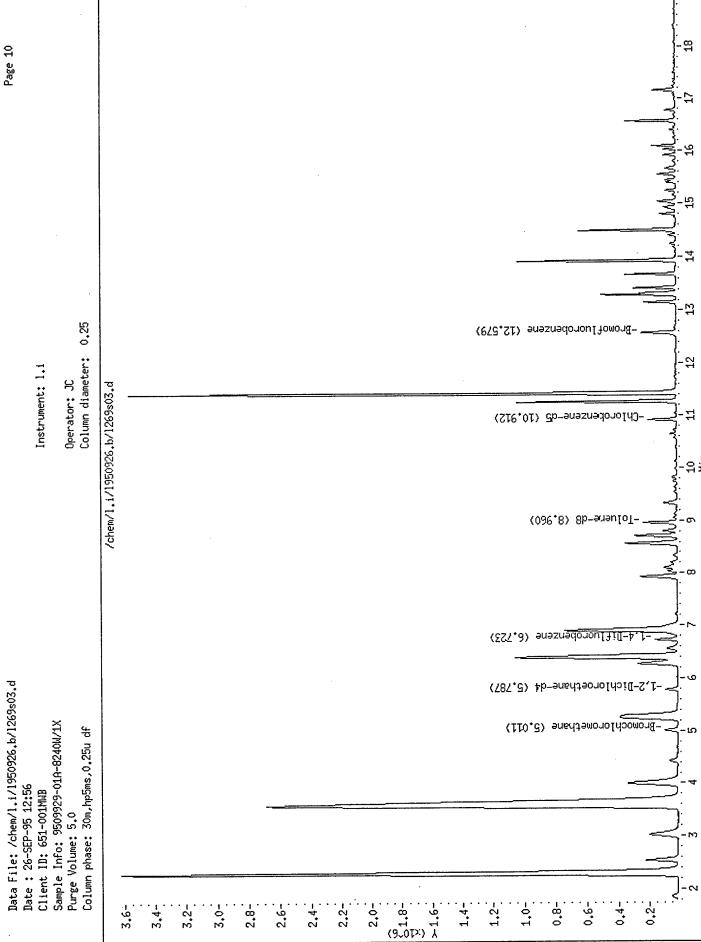
Column phase: 30m,hp5ms,0,25u df

Instrument: 1.i

Operator: JC

Column diameter: 0.25





Report Date: 26-Sep-1995 15:35

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l950926.b/l269s06.d

Lab Smp Id: 9509929-01A

Inj Date : 26-SEP-1995 14:39

Inst ID: 1.i

Operator : JC Smp Info : 9509929-01A-8240W/10X Misc Info : L269W1/L269B01/269CC1

Comment

Method : /chem/l.i/l950926.b/lvoclpw.m Meth Date : 26-Sep-1995 10:28 jimmy ( Quant Type: ISTD Cal Date : 26-SEP-1995 09:54 Cal File: 1269cc1.d

Als bottle: 13 Dil Factor: 10.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

							CONCENTRA	TIONS
		QUANT SIG					ON-COLUMN	FINAL
Co	ompounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ug/L)
==		====	==			======		======
M	53 Xylene (Total)	106.00				99459	430	860
	54 Ethylbenzene	106.00	11.266	11.260	(1.032)	16157	90	180
	55 m,p-Xylene(s)	106.00	11.427	11.429	(1.047)	99459	430	860
	23 Bromochloromethane	128.00	5.026	5.011	(1.000)	25514	250	
_*	32 1,4-Difluorobenzene	114.00	6.738	6.723	(1.000)	121240	250	
_*	50 Chlorobenzene-d5	117.00	10.919	10.912	(1.000)	101544	250	
\$	26 1,2-Dichloroethane-d4	102.00	5.793	5.787	(1.153)	10041	250	49
ş	43 Toluene-d8	98.00	8.966	8.951	(0.821)	133669	250	50
\$	61 Bromofluorobenzene	95.00	12.594	12.588	(1.153)	50829	240	49

Data File: /chem/l.i/1950926.b/1269s06.d

Report Date: 26-Sep-1995 15:35

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1269s06.d

Lab Smp Id: 9509929-01A

Analysis Type: VOA

Quant Type: ISTD

Operator: JC Method File: /chem/l.i/1950926.b/lvoclpw.m

Misc Info: L269W1/L269B01/269CC1

Calibration Date: 09/26/95 Calibration Time: 0954

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	27367 126257 105620	63128	252514	25514 121240 101544	

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.01 6.72 10.91	4.51 6.22 10.41		5.03 6.74 10.92	0.30 0.23 0.06

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Date: 26-SEP-1995 14:39

Client ID:

Instrument: 1.i

Sample Info: 9509929-01A-8240W/10X

Purge Volume: 5.0

40

50

60

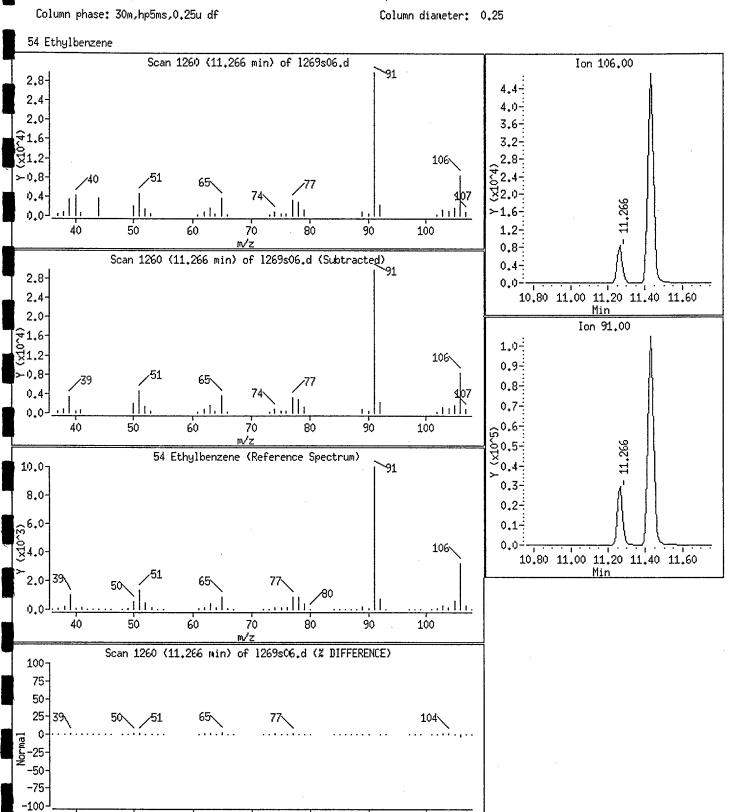
70

80

90

100

Operator: JC



Date: 26-SEP-1995 14:39

Client ID:

Instrument: 1.i

Sample Info: 9509929-01A-8240W/10X

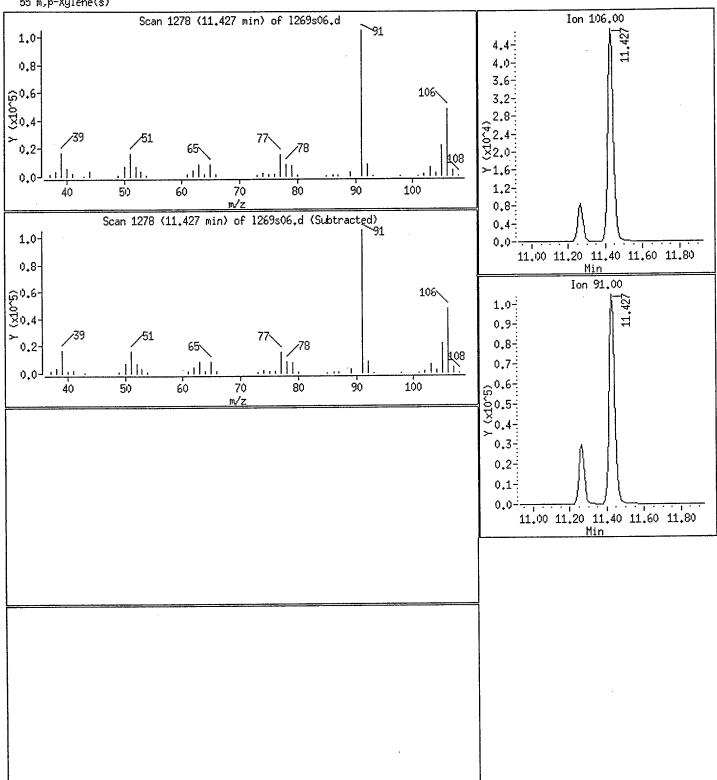
Purge Volume: 5.0

Operator: JC

Column phase: 30m, hp5ms, 0.25u df

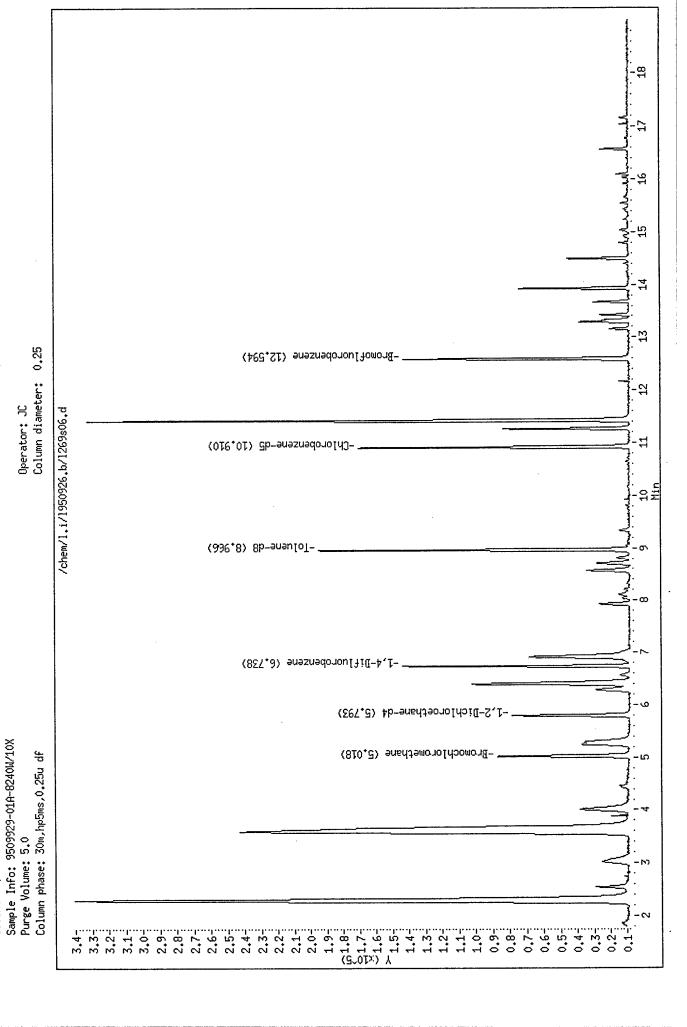
Column diameter: 0.25





Instrument: 1.i

Data File: /chem/l.i/1950926.b/1269s06.d Date : 26-SEP-1995 14:39 Client ID:



Data File: /chem/l.i/1950926.b/1269tl1.d Page 1

Report Date: 26-Sep-1995 11:39

# SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950926.b/1269tl1.d

Lab Smp Id: LCS

Inj Date : 26-SEP-1995 11:13

Operator : JC Inst ID: l.i

Smp Info : METHSPIKE-8240W/1X
Misc Info : L269W1//L269CC1

Comment :

Method : /chem/l.i/1950926.b/lvoclpw.m

Meth Date : 26-Sep-1995 10:28 jimmy Quant Type: ISTD Cal Date : 26-SEP-1995 09:54 Cal File: 1269cc1.d QC Sample: METHSPIKE

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					CONCENTR	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
***********	*===	==	=======================================	******		,======
1 Chloromethane	50.00	1.703	1.704 (0.339)	67573	270	55
2 Vinyl Chloride	62.00	1.802	1.802 (0.359)	57282	260	53
3 Bromomethane	94.00	2.015	2.025 (0.402)	38203	260	52
4 Chloroethane	64.00	2.078	2.078 (0.414)	33156	260	52
7 Trichlorofluoromethane	101.00	2.417	2.417 (0.481)	49113	260	52
8 Acetone	58.00	2.488	2.480 (0.496)	6328	240	49
11 1,1-Dichloroethene	96.00	2.853	2.845 (0.568)	29990	260	51
13 Methylene Chloride	84.00	3.085	3.077 (0.615)	41024	260	52
M 18 1,2-Dichloroethene (total)	96.00			77188	520	100
14 Carbon Disulfide	76.00	3.192	3.184 (0.636)	146021	260	52
15 trans-1,2-Dichloroethene	96.00	3.638	3.629 (0.725)	33628	260	52
17 1,1-Dichloroethane	63.00	3.959	3.950 (0.789)	83195	260	52
19 Vinyl Acetate	43.00	4.048	4.040 (0.806)	90186	220	45
20 2-Butanone	43.00	4.431	4.414 (0.883)	29826	250	51
21 cis-1,2-Dichloroethene	96.00	4.761	4.753 (0.948)	43560	260	52
24 Chloroform	83.00	5.037	5.029 (1.004)	88148	260	52
27 1,1,1-Trichloroethane	97.00	5.822	5.813 (0.865)	62622	260	52
28 1,2-Dichloroethane	62.00	5.911	5.903 (1.178)	77319	260	52
30 Benzene	78.00	6.267	6.259 (0.931)	174660	260	51
31 Carbon Tetrachloride	117.00	6.294	6.286 (0.935)	55242	260	52
34 1,2-Dichloropropane	63.00	7.257	7.249 (1.078)	53454	260	52
35 Trichloroethene	130.00	7.293	7.284 (1.083)	42424	270	54
37 Bromodichloromethane	83.00	7.480	7.471 (1.111)	63919	260	52
39 2-Chloroethylvinylether	63.00	8.086	8.086 (1.201)	27703	250	50
40 4-Methyl-2-Pentanone	43.00	8.318	8.318 (1.236)	66208	240	48
41 cis-1,3-Dichloropropene	75.00	8.344	8.345 (1.240)	72730	260	52
42 trans-1,3-Dichloropropene	75.00	8.977	8.969 (1.334)	63995	250	50
44 Toluene	92.00	9.057	9.058 (0.830)	93800	250	51
45 1,1,2-Trichloroethane	83.00	9.147	9.138 (1.359)	37243	260	53

Data File: /chem/l.i/1950926.b/1269tl1.d Report Date: 26-Sep-1995 11:39

_						CONCENTRA	ATIONS
	long out de	QUANT SIG				ON-COLUMN	FINAL
₩,	compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
=:	20220000000000000000000000000000000000	***	==				======
Ì	46 2-Hexanone	43.00	9.521	9.522 (0.873)	45611	240	48
	47 Dibromochloromethane	129.00	9.771	9.762 (1.452)	43746	260	51
_	49 Tetrachloroethene	164.00	10.118	10.110 (0.927)	35750	260	51
_	52 Chlorobenzene	112.00	10.956	10.957 (1.004)	101864	260	
	53 Xylene (Total)	106.00		,,	182230	780	52
	54 Ethylbenzene	106.00	11.259	11.260 (1.032)	46317	780 250	160
	55 m,p-Xylene(s)	106.00	11.429	11.429 (1.047)	121484		51
	56 Bromoform	173.00	11.839	11.839 (1.085)	34731	520	100
	57 Styrene	104.00	11.892	11.893 (1.090)	95156	250	51
	59 o-Xylene	106.00	11.954	11.946 (1.096)		260	52
	60 1,1,2,2-Tetrachloroethane	83.00	12.302	12.303 (1.127)	60746	260	52
	23 Bromochloromethane	128.00	5.019		58480	250	50
	32 1,4-Difluorobenzene	114.00	6.731	5.011 (1.000)	26723	250	
*	50 Chlorobenzene-d5	117.00		6.723 (1.000)	121563	<b>2</b> 50	
	26 1,2-Dichloroethane-d4	102.00	10.912	10.912 (1.000)	103277	250	
	43 Toluene-d8		5.795	5.787 (1.154)	10719	250	50
s	61 Bromofluorobenzene	98.00	8.959	8.951 (0.821)	136949	250	50
_		95.00	12.587	12.588 (1.154)	53826	250	51

Data File: /chem/1.i/1950926.b/1269tl1.d

Report Date: 26-Sep-1995 11:39

### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: l.i

Lab File ID: 1269tl1.d

Lab Smp Id: LCS

Analysis Type: VOA

Quant Type: ISTD
Operator: JC
Method File: /chem/l.i/1950926.b/lvoclpw.m
Misc Info: L269W1//L269CC1

Calibration Date: 09/26/95 Calibration Time: 0954

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	27367 126257 105620	13684 63128 52810	252514	26723 121563 103277	1 1

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.01	4.51	5.51	5.02	0.17
	6.72	6.22	7.22	6.73	0.12
	10.91	10.41	11.41	10.91	-0.01

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard-RT.

Y (:410°5)

1.0-

-8 17

Data File: /chem/l.i/1950926.b/1269td1.d

Report Date: 26-Sep-1995 12:02

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950926.b/1269td1.d

Lab Smp Id: LCSD

Inj Date : 26-SEP-1995 11:39

Operator : JC Inst ID: 1.i

Smp Info : METHSPIKEDUP-8240W/1X Misc Info : L269W1/L269TL1/269CC1

Comment :

Method : /chem/l.i/1950926.b/lvoclpw.m

Meth Date: 26-Sep-1995 10:28 jimmy Quant Type: ISTD
Cal Date: 26-SEP-1995 09:54 Cal File: 1269cc1.d
Als bottle: 6 QC Sample: METHSPIKE

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

	•					CONCENTRA	ATIONS
		QUANT SIG				ON-COLUMN	FINAL
Co	mpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
==	****	====	==		======		======
	1 Chloromethane	50.00	1.701	1.704 (0.339)	68618	280	56
	2 Vinyl Chloride	62.00	1.799	1.802 (0.359)	58011	270	54
	3 Bromomethane	94.00	2.022	2.025 (0.403)	37981	260	52
	4 Chloroethane	64.00	2.076	2.078 (0.414)	32849	260	51
	7 Trichlorofluoromethane	101.00	2.414	2.417 (0.481)	47380	250	50
	8 Acetone	58.00	2.486	2.480 (0.495)	4682	180	36
	11 1,1-Dichloroethene	96.00	2.851	2.845 (0.568)	29418	250	51
	13 Methylene Chloride	84.00	3.074	3.077 (0.613)	41106	260	52
М	18 1,2-Dichloroethene (total)	96.00			75730	510	100
	14 Carbon Disulfide	76.00	3.190	3.184 (0.636)	143604	260	52
	15 trans-1,2-Dichloroethene	96.00	3.636	3.629 (0.725)	32813	250	51
	17 1,1-Dichloroethane	63.00	3.957	3.950 (0.789)	82788	260	53
	19 Vinyl Acetate	43.00	4.046	4.040 (0.806)	78553	200	39
	20 2-Butanone	43.00	4.420	4.414 (0.881)	26153	220	45
	21 cis-1,2-Dichloroethene	96.00	4.759	4.753 (0.948)	42917	260	52
	24 Chloroform	83.00	5.035	5.029 (1.004)	86841	260	52
	27 1,1,1-Trichloroethane	97.00	5.820	5.813 (0.865)	61538	250	51
	28 1,2-Dichloroethane	62.00	5.909	5.903 (1.178)	75321	250	51
	30 Benzene	78.00	6.265	6.259 (0.931)	171771	250	50
	31 Carbon Tetrachloride	117.00	6.292	6.286 (0.935)	54749	260	52
	34 1,2-Dichloropropane	63.00	7.255	7.249 (1.078)	52226	260	51
	35 Trichloroethene	130.00	7.290	7.284 (1.083)	41071	260	52
	37 Bromodichloromethane	83.00	7.478	7.471 (1.111)	61623	250	50
	39 2-Chloroethylvinylether	63.00	8.093	8.086 (1.203)	24930	220	45
	40 4-Methyl-2-Pentanone	43.00	8.316	8.318 (1.236)	60416	220	44
	41 cis-1,3-Dichloropropene	75.00	8.342	8.345 (1.240)	68912	- 250	49
	42 trans-1,3-Dichloropropene	75.00	8.975	8.969 (1.334)	61953	240	48
	44 Toluene	92.00	9.055	9.058 (0.830)	92955	250	50
	45 1,1,2-Trichloroethane	83.00	9.145	9.138 (1.359)	35062	250	49

Data File: /chem/l.i/1950926.b/1269td1.d Report Date: 26-Sep-1995 12:02

							CONCENTRA	ATIONS
			QUANT SIG				ON-COLUMN	FINAL
	mpou	ands	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
==		=======================================		==		=======	======	*****
	46	2-Hexanone	43.00	9.528	9.522 (0.873)	44553	230	46
	47	Dibromochloromethane	129.00	9.768	9.762 (1.452)	42433	250	50
_	49	Tetrachloroethene	164.00	10.116	10.110 (0.927)	35435	250	51
_	52	Chlorobenzene	112.00	10.954	10.957 (1.004)	98829	250	50
	53	Xylene (Total)	106.00			178516	760	150
8	54	Ethylbenzene	106.00	11.257	11.260 (1.032)	46624	250	51
	55	m,p-Xylene(s)	106.00	11.426	11.429 (1.047)	119383	510	100
	56	Bromoform	173.00	11.845	11.839 (1.086)	31955	230	47
	57	Styrene	104.00	11.890	11.893 (1.090)	92601	250	50
	59	o-Xylene	106.00	11.952	11.946 (1.096)	59133	250	50
	60	1,1,2,2-Tetrachloroethane	83.00	12.300	12.303 (1.127)	52436	220	45
	23	Bromochloromethane	128.00	5.017	5.011 (1.000)	26523	250	
-	32	1,4-Difluorobenzene	114.00	6.729	6.723 (1.000)	122357	250	
* نسب	50	Chlorobenzene-d5	117.00	10.909	10.912 (1.000)	103396	250	
	26	1,2-Dichloroethane-d4	102.00	5.793	5.787 (1.155)	10837	260	51
	43	Toluene-d8	98.00	8.957	8.951 (0.821)	139241	260	51
\$	61	Bromofluorobenzene	95.00	12.585	12.588 (1.154)	53472	250	50

Data File: /chem/l.i/1950926.b/1269td1.d

Report Date: 26-Sep-1995 12:02

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: l.i
Lab File ID: 1269td1.d

Lab Smp Id: LCSD Analysis Type: VOA Quant Type: ISTD

Operator: JC Method File: /chem/l.i/1950926.b/lvoclpw.m

Misc Info: L269W1/L269TL1/269CC1

Calibration Date: 09/26/95

Page 3

Calibration Time: 0954

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	
23 Bromochloromethane 32 1,4-Difluorobenzene	27367 126257		54734 252514	26523 122357	-3.08 -3.09
50 Chlorobenzene-d5	105620	52810	211240	103396	-2.11

COMPOUND		RT	LIMIT	031477 7	0 DIDD
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	========	=======	=======	=======	======
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	5.01 6.72 10.91	4.51 6.22 10.41	5.51 7.22 11.41	5.02 6.73 10.91	0.12 0.09 -0.02

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/1.1/1950926.b/1269td1.d Date : 26-SEP-1995 11:39

Data File: /chem/l.i/1950925.b/1268k01.d

Report Date: 28-Sep-1995 13:37

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1950925.b/1268k01.d

Lab Smp Id: 9509826-02A MS Client Smp ID: 312MS

Inj Date : 25-SEP-1995 11:21

Operator : JC Inst ID: 1.i

Smp Info : MS-8240W/1X

Misc Info : L268W1/L268S02/268CC1

Comment :

Target Version:

Method : /chem/1.i/1950925.b/lvoclpw.m

3.10

Meth Date : 28-Sep-1995 13:35 jimmy Quant Type: ISTD Cal Date : 25-SEP-1995 07:43 Cal File: 1268cc1.d

Als bottle: 10 QC Sample: MS

Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: normal.sub

CONCENTRATIONS **OUANT SIG** ON-COLUMN FINAL Compounds MASS RT EXP RT REL RT RESPONSE ng) ( ug/L) --------== ##### ##### ======= ====== 1 Chloromethane 50.00 1.704 1.702 (0.339) 94136 290 58 2 Vinyl Chloride 1.800 (0.359) 62.00 1.802 78400 270 54 3 Bromomethane 94.00 2.016 2.014 (0.402) 52833 280 56 4 Chloroethane 64.00 2.078 2.077 (0.414) 44383 250 51 7 Trichlorofluoromethane 101.00 2.426 2.415 (0.483) 62003 240 49 8 Acetone 58.00 2.479 2.478 (0.494) 5559 120 25 11 1,1-Dichloroethene 96.00 2.845 2.843 (0.567) 42821 250 50 13 Methylene Chloride 84.00 3.075 (0.611) 3.068 59141 260 52 M 18 1,2-Dichloroethene (total) 96.00 111988 500 100 14 Carbon Disulfide 76.00 3.184 3.191 (0.634) 197435 250 51 15 trans-1,2-Dichloroethene 96.00 3.638 3.636 (0.725) 47388 240 49 17 1,1-Dichloroethane 63.00 3.959 3.957 (0.789) 111786 250 50 19 Vinyl Acetate 43.00 4.048 4.046 (0.806) 182434 270 54 20 2-Butanone 43.00 4.414 4.412 (0.879) 51145 200 40 21 cis-1,2-Dichloroethene 96.00 4.752 4.751 (0.947) 64600 250 51 24 Chloroform 83.00 5.029 5.027 (1.002) 216202 460 92 27 1,1,1-Trichloroethane 97.00 5.813 5.820 (0.864) 82272 240 48 28 1,2-Dichloroethane 62.00 5.902 5.901 (1.176) 108456 260 52 30 Benzene 78.00 6.268 6.266 (0.931) 261379 250 50 31 Carbon Tetrachloride 117.00 6.295 6.293 (0.935) 99540 330 66 34 1,2-Dichloropropane 63.00 7.248 7.256 (1.077) 79045 250 51 35 Trichloroethene 130.00 7.284 7.282 (1.082) 62505 260 52 37 Bromodichloromethane 83.00 7.480 7.478 (1.111) 89353 250 50 40 4-Methyl-2-Pentanone 43.00 8.318 8.316 (1.236) 113077 240 48 41 cis-1,3-Dichloropropene 75.00 8.345 8.343 (1.240) 109842 250 51 42 trans-1,3-Dichloropropene 75.00 8.978 8.976 (1.334) 100406 260 52 44 Toluene 92.00 9.058 9.056 (0.830) 138364 250 51 45 1,1,2-Trichloroethane 83.00 9.138 9.145 (1.358) 54104 260 53 46 2-Hexanone 43.00 9.521 9.520 (0.873) 72195 190 38

Data File: /chem/l.i/l950925.b/l268k01.d Report Date: 28-Sep-1995 13:37

								CONCENTRATIONS		
			QUANT SIG				ON-C	COLUMN	FINAL	
L.C	oqmo	unds	MASS	RT	EXP RT	REL RT	RESPONSE	(	ng)	( ug/L)
=:	====:	=======================================	====	==	=====	=====	=======	==:		======
	47	Dibromochloromethane	129.00	9.762	9.769	(1.450)	64017		250	50
	49	Tetrachloroethene	164.00	10.110		(0.926)	70067		320	65
_	52	Chlorobenzene	112.00	10.957		(1.004)	144344		260	
M	53	Xylene (Total)	106.00			(=,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	260292		760	51
	54	Ethylbenzene	106.00	11.260	11.258	(1.032)	69944		•	150
	55	m,p-Xylene(s)	106.00	11.429		(1.032)	173828		260	51
	56	Bromoform	173.00	11.839	11.837				510	100
	57	Styrene	104.00	11.892			55201		250	50
	59	o-Xylene	106.00			(1.090)	146600		260	52
→		1,1,2,2-Tetrachloroethane		11.946	11.953		86464		260	51
			83.00	12.303	12.301	(1.127)	89613		270	54
		Bromochloromethane	128.00	5.020	5.018	(1.000)	32193		250	
		1,4-Difluorobenzene	114.00	6.731	6.730	(1.000)	171632		250	
-	50	Chlorobenzene-d5	117.00	10.912	10.910	(1.000)	140393		250	
\$	26	1,2-Dichloroethane-d4	102.00	5.786	5.794	(1.153)	13427		240	47
	43	Toluene-d8	98.00	8.951		(0.820)	176784		250	51
	61	Bromofluorobenzene	95.00	12.588	12.586	•	77902		260	52
		•				,	. 1302		200	52

Data File: /chem/l.i/1950925.b/l268k01.d

Report Date: 28-Sep-1995 13:37

# SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1268k01.d Lab Smp Id: 9509826-02A MS

Analysis Type: VOA Quant Type: ISTD

Operator: JC
Method File: /chem/l.i/1950925.b/lvoclpw.m

Misc Info: L268W1/L268S02/268CC1

Calibration Date: 09/25/95 Calibration Time: 0743

Client Smp ID: 312MS

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	30867	15434	324600	32193	4.30
32 1,4-Difluorobenzene	162300	81150		171632	5.75
50 Chlorobenzene-d5	134145	67072		140393	4.66

|--|

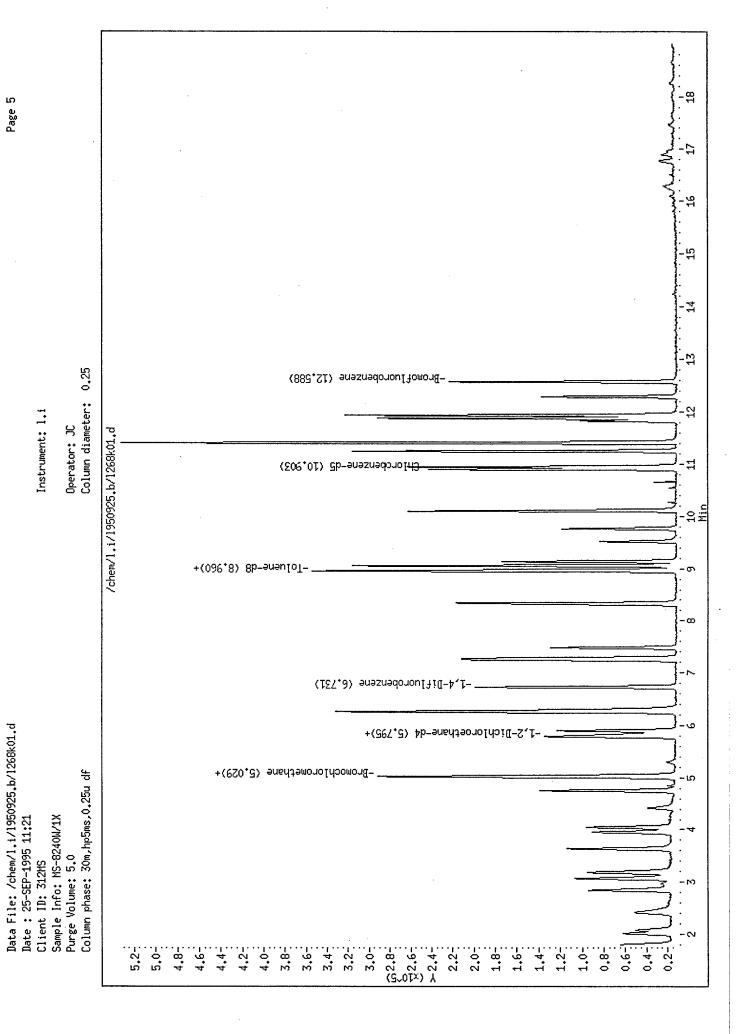
AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i



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Data File: /chem/1.i/1950925.b/1268kd1.d

Report Date: 28-Sep-1995 13:37

## SPL Labs

# Volatiles by 624/8240

Data file : /chem/l.i/1950925.b/l268kd1.d

Lab Smp Id: 9509826-02A MSD Client Smp ID: 312MSD

Inj Date : 25-SEP-1995 11:47

Operator : JC Inst ID: 1.i

Smp Info : MSD-8240W/1X

Misc Info : L268W1/L268K01/268CC1

Comment :

Method : /chem/l.i/l950925.b/lvoclpw.m

Meth Date : 28-Sep-1995 13:35 jimmy Quant Type: ISTD Cal Date : 25-SEP-1995 07:43 Cal File: 1268cc1.d

Als bottle: 11 QC Sample: MSD

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					CONCENTRA	rions	
	QUANT SIG				ON-COLUMN	FINAL	
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)	
######################################	====	==		=======		======	
1 Chloromethane	50.00	1.701	1.702 (0.339)	94167	300	61	
2 Vinyl Chloride	62.00	1.799	1.800 (0.359)	78314	290	57	
3 Bromomethane	94.00	2.013	2.014 (0.401)	51586	290	58	
4 Chloroethane	64.00	2.075	2.077 (0.414)	45454	270	55	
7 Trichlorofluoromethane	101.00	2.423	2.415 (0.483)	62292	260	52	
8 Acetone	58.00	2.476	2.478 (0.494)	5383	130	25	
11 1,1-Dichloroethene	96.00	2.850	2.843 (0.568)	42192	260	51	
13 Methylene Chloride	84.00	3.073	3.075 (0.613)	58499	270	54	
M 18 1,2-Dichloroethene (total)	96.00			109270	510	100	
14 Carbon Disulfide	76.00	3.189	3.191 (0.636)	195558	260	53	
15 trans-1,2-Dichloroethene	96.00	3.635	3.636 (0.725)	45849	250	50	
17 1,1-Dichloroethane	63.00	3.956	3.957 (0.789)	108425	260	51	
19 Vinyl Acetate	43.00	4.045	4.046 (0.806)	171528	270	54	
20 2-Butanone	43.00	4.410	4.412 (0.879)	45062	180	37	
21 cis-1,2-Dichloroethene	96.00	4.758	4.751 (0.948)	63421	260	52	
24 Chloroform	83.00	5.034	5.027 (1.004)	212232	480	95	
27 1,1,1-Trichloroethane	97.00	5.819	5.820 (0.865)	81102	250	50	
28 1,2-Dichloroethane	62.00	5.899	5.901 (1.176)	106027	260	53	
30 Benzene	78.00	6.264	6.266 (0.931)	253604	260	52	
31 Carbon Tetrachloride	117.00	6.291	6.293 (0.935)	99489	350	70	
34 1,2-Dichloropropane	63.00	7.254	7.256 (1.078)	78062	270	53	
35 Trichloroethene	130.00	7.281	7.282 (1.082)	60263	270	54	
37 Bromodichloromethane	83.00	7.477	7.478 (1.111)	86733	260	52	
40 4-Methyl-2-Pentanone	43.00	8.315	8.316 (1.236)	99164	230	45	
41 cis-1,3-Dichloropropene	75.00	8.341	8.343 (1.240)	108587	270	53	
42 trans-1,3-Dichloropropene	75.00	8.974	8.976 (1.334)	98555	270	54	
44 Toluene	92.00	9.055	9.056 (0.830)	135727	260	52	
45 1,1,2-Trichloroethane	83.00	9.144	9.145 (1.359)	53114	280	<b>5</b> 5	
46 2-Hexanone	43.00	9.518	9.520 (0.873)	62796	170	34	

Data File: /chem/l.i/1950925.b/1268kd1.d Report Date: 28-Sep-1995 13:37

								CC	DICENTRA	ATIONS
			QUANT SIG					ON-C	COLUMN	FINAL
3	ompounds		MASS	RT	EXP RT	REL RT	RESPONSE	(	ng)	( ug/L)
==			====	-	=====	=====	****====	===	====	======
	47	Dibromochloromethane	129.00	9.768	9.769	(1.452)	61646		250	51
ì	49	Tetrachloroethene	164.00	10.115	10.108	(0.927)	67525		320	65
_	52	Chlorobenzene	112.00	10.953	10.955	(1.004)	141848		260	52
М	53	Xylene (Total)	106.00				254779		780	160
	54	Ethylbenzene	106.00	11.256	11.258	(1.032)	67635		260	51
	55	m,p-Xylene(s)	106.00	11.426	11.427	(1.047)	169240		510	100
	56	Bromoform	173.00	11.836	11.837	(1.085)	51619		240	48
	57	Styrene	104.00	11.889	11.891	(1.090)	144137		270	53
	59	o-Xylene	106.00	11.952	11.953	(1.096)	85539		260	53
	60	1,1,2,2-Tetrachloroethane	83.00	12.299	12.301	(1.127)	82595		260	51
Ì	23	Bromochloromethane	128.00	5.017	5.018	(1.000)	30629		250	
	32	1,4-Difluorobenzene	114.00	6.728	6.730	(1.000)	161315		250	
	50	Chlorobenzene-d5	117.00	10.909	10.910	(1.000)	134916		250	
\$	26	1,2-Dichloroethane-d4	102.00	5.792	5.794	(1.155)	12950		240	48
	43	Toluene-d8	98.00	8.956	8.958	(0.821)	168784		250	51
	61	Bromofluorobenzene	95.00	12.584	12.586	(1.154)	73967		260	51

Data File: /chem/l.i/1950925.b/1268kd1.d

Report Date: 28-Sep-1995 13:37

### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1268kd1.d Lab Smp Id: 9509826-02A MSD

Analysis Type: VOA Quant Type: ISTD

Operator: JC

Method File: /chem/l.i/1950925.b/lvoclpw.m

Misc Info: L268W1/L268K01/268CC1

Calibration Date: 09/25/95

Calibration Time: 0743 Client Smp ID: 312MSD

Level: LOW

Sample Type: WATER

COMPOUND  ===================================	STANDARD ======= 30867 162300	LOWER ======= 15434 81150	LIMIT UPPER ======= 61734 324600 268290	SAMPLE ======= 30629 161315 134916	% DIFF ====== -0.77 -0.61 0.57
50 Chlorobenzene-d5	134145	67072	200290		

COMPOUND  23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	STANDARD ======== 5.02 6.73 10.91	LOWER ======= 4.52 6.23		SAMPLE ======= 5.02 6.73 10.91	% DIFF ====== -0.03 -0.02 -0.01
----------------------------------------------------------------------------	-----------------------------------------------	----------------------------------	--	--------------------------------------------	---------------------------------------------

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



SPL BATCH QUALITY CONTROL REPORT \*\*
Modified 8015 - Gasoline

PAGHOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix:

Aqueous

Units:

mg/L

Batch Id: HP\_0950928230810

# LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons	ND	1.0	0.69	69.0	56 - 139

### MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results	Spike Added	Matrix	Spike	Matrix Dupli	Spike	MS/MSD Relative %	-	Limits(***) (Advisory)
	<2>	<3>	Result <1>	Recovery <4>	Result	Recovery <5>	Difference		Recovery Range
PETROLEUM HYDROCARBONS	ND	0.9	0.81	90.0	0.79	87.8	2.47	18	40 - 158

Analyst: JZL

Sequence Date: 09/27/95

SPL ID of sample spiked: 9509884-01A

Sample File ID: OO\_\_774.TX0

Method Blank File ID:

Blank Spike File ID: 0\_\_\_766.TX0

Matrix Spike File ID: 0\_\_\_769.TX0

Matrix Spike Duplicate File ID: O\_\_\_770.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

\* Recovery = [( <1> - <2> ) / <3> ] x 100

LCS \* Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x 100

(\*\*) = Source: SPL Historical data

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH (SPL ID):

9509929-01B 9509939-05A

OC Officer



\*\* SPL BATCH QUALITY CONTROL REPORT \*\*
Mod. 8015 - Diesel

PAGE

# **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix: Units: Aqueous

mg/L

Batch Id: HPTT950927171900

#### BLANK SPIKES

SPIKE COMPOUNDS	Sample Results	Spike Added	Matrix	***************************************		Limits(**) (Advisory)			
·	<2>	<3>	Result	Recovery	Result	Recovery <5>	Difference	RPD Max.	Recovery Range
PETROLEUM HYDROCARBONS-DIE	ND	5.0	5.28	105	5.53	110	4.65	43	20 - 130

Analyst: SEG

Sequence Date: 09/27/95 Method Blank File ID:

Sample File ID:

Blank Spike File ID: TT\_\_592.TX0

Matrix Spike File ID:

Matrix Spike Duplicate File ID:

\* - Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [( <1> - <2> ) / <3> ] x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x 100

(\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH (SPL ID):

9509916-09B 9509916-11B 9509916-12B 9509916-13B

9509916-14B 9509929-01C 9509916-02B 9509916-03B 9509916-08B 9509916-10B 9509916-01B 9509916-04B

9509916-05B 9509916-06B 9509916-07B

OC Officer



\*\* SPL BATCH QUALITY CONTROL REPORT \*\*
Wisconsin DNR Modified DRO

PAGE

HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix:

Aqueous

Units:

mg/L

Batch Id: HP\_T950928153210

### BLANK SPIKES

S P I K B C O M P O U N D S	Sample Results	Spike Added	Matrix				Limits(**) (Advisory)		
	<2>	<3>	Result	Recovery <4>	Result	Recovery <5>	Difference	RPD Max.	Recovery Range
DIESEL RANGE ORGANICS	ND	5.0	5.28	105	5.53	110	4.65	43	20 - 177

Analyst: SEG

Sequence Date: 09/27/95 Method Blank File ID:

Sample File ID:

Blank Spike File ID: TT\_\_592.TX0

Matrix Spike File ID:

Matrix Spike Duplicate File ID:

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

Recovery = ((<1> - <2>) / <3>) x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x 100

(\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH (SPL ID):

9509929-01C

QC Officer

\_\_\_\_\_\_\_\_\_\_ ftware Version: 3.2 <16C20>

mple Name : LCS\_1.0 Sample Number: TL ;W;

Time Study

: 09/27/95 23:02 : MODWG;1;PQL

Operator

: JZL

nstrument : HP\_O AutoSampler : NONE

Channel: A

A/D mV Range: 1024

Rack/Vial

terface Serial #: Data Acquisition Time: 09/27/95 22:40

lay Time : 0.00 min. nd Time : 22.49 min. End Time Sampling Rate : 2.5000 pts/sec

Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_0.ins rocess File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc
ample File : L:\DATA\TCHROM\BTEX\METHODS\OSG07065.smp
equence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

<u>I</u>nj. Volume ample Amount : 1.0000

: 2 ul

Area Reject : 100.00

Dilution Factor : 1.00

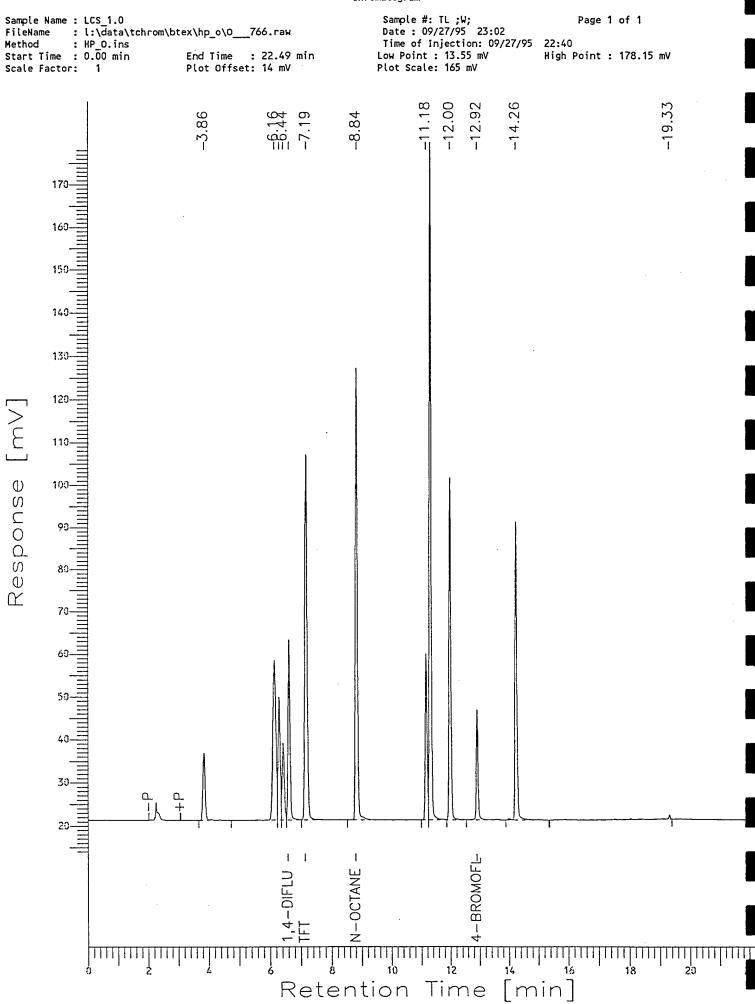
PURFID Area Percent Report

				•					
Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 12 13	3.856 6.160 6.313 6.442 6.634 7.189 8.836 11.180 11.327 11.999 12.924 14.255 19.327	84269.97 267410.19 135072.70 88925.66 190908.47 454261.66 484347.06 166783.64 662671.19 354011.97 109933.33 314540.97 2779.15	15600.27 BV 37183.13 VV 28613.85 VV 17828.64 VV 42003.02 VV 85848.92 VV 106136.77 VB 38678.89 BV 156688.27 VV 80391.31 VV 25732.07 VV 69996.58 VB 980.37 BB	1.0000e6 1.0000e6 9.9999e5 9.9999e5 1912.9424 	2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772	0.8877 0.8877 0.8877 0.8877 0.8877 0.8877 0.8877 0.8877 0.8877 0.8877	1,4-DIFLUOROBENZENE TFT n-Octane 4-BROMOFLUOROBENZENE	0.0843 0.2674 0.1351 0.0889 99.7983 0.0000 121.2620 0.1668 0.6627 0.3540 134.7728 0.3145	0.8877 0.8877 0.8877 0.8877 0.8877 0.8877 0.8877
		3315916.00	705682.06		34.8036	11.5406		357.9096	11.5406

roup Report For : SURROGATES

7	eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
	1 2 4	6.634 7.189 12.924	190908.47 454261.66 109933.33	42003.02 BV 85848.92 VV 25732.07 VV		2.6772 2.6772 2.6772	0.2022	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	99.7983 0.0000 134.7728	0.2022
Ė	1		755103.44	153584.02		8.0316	0.6065		234.5712	0.6065

Peport Stored in ASCII File: l:\data\tchrom\btex\hp\_o\0\_\_766.TX0



Software Version: 3.2 <16C2O>

Sample Name : STD\_0.9 Sample Number: TC ;W; Operator : JZL

Time Study

: 09/27/95 23:30 : MODWG;1;PQL

Channel: A

A/D mV Range: 1024

Instrument : HP\_O AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # :

Data Acquisition Time: 09/27/95 23:08

Delay Time : 0.00 min. End Time : 22.49 min. Sampling Rate : 2.5000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_o\0\_\_767.raw
Result File : l:\data\tchrom\btex\hp\_o\0\_\_767.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHOOS\HP\_0.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\OSG07065.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

0.89

Inj. Volume : 2 ul Sample Amount : 1.0000

Area Reject

: 100.00

Dilution Factor : 1.00

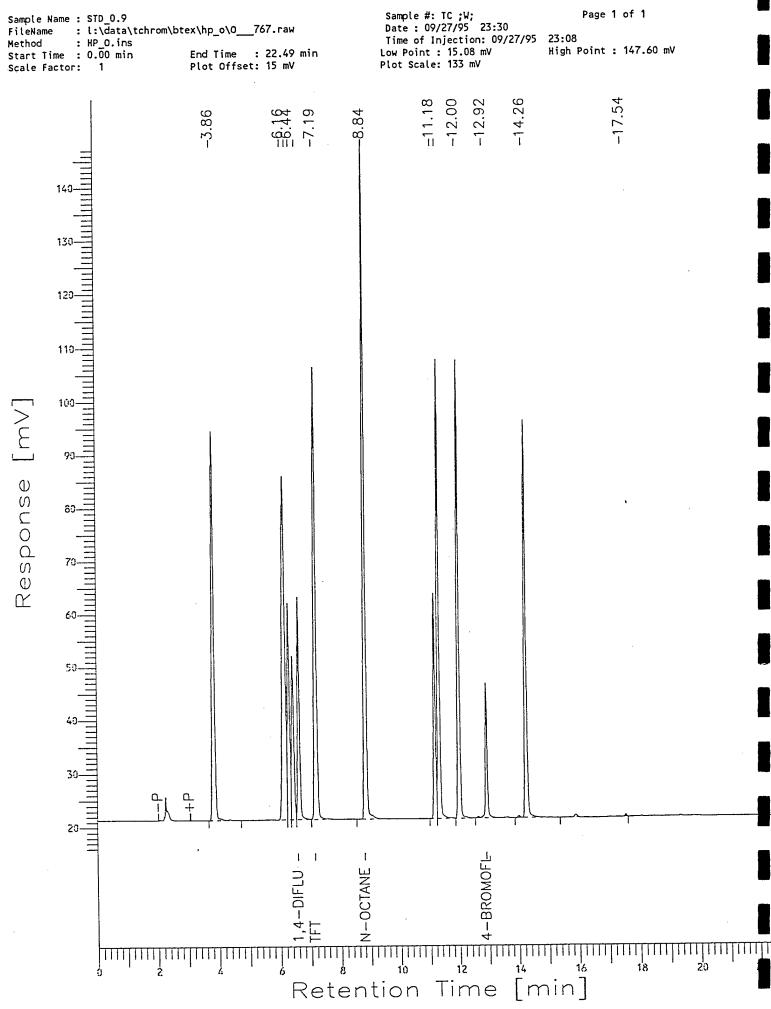
PURFID Area Percent Report

Peak # 	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 12 13	3.855 6.160 6.313 6.442 6.634 7.188 8.836 11.179 11.326 11.999 12.923 14.255 17.537	383166.53 461788.09 194013.14 151205.03 189777.92 450807.22 572683.94 182130.48 379591.91 378528.28 111274.61 338412.47 2899.01	73143.13 BV 64555.89 VV 40666.20 VV 30715.49 VV 41798.58 VV 85038.15 VV 126515.93 VB 42307.35 BV 86308.13 VV 86152.66 VV 25319.09 VV 74923.81 VB 481.62 BB	1.0000e6 1.0000e6 1.0000e6 1.0000e6 1898.3954 	2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772	1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163	1,4-DIFLUOROBENZENE TFT n-Octane 4-BROMOFLUOROBENZENE	0.3832 0.4618 0.1940 0.1512 99.9675 0.0000 144.4768 0.1821 0.3796 0.3785 137.4625 0.3384 0.0029	1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163 1.0163
<del></del>		3796278.50	777926.06		34.8036	13.2124		384.3786	13.2124

roup Report For : SURROGATES

eak Ret Time # [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 6.634 2 7.188 4 12.923	189777.92 450807.22 111274.61	41798.58 BV 85038.15 VV 25319.09 VV		2.6772 2.6772 2.6772	0.2013	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	99.9675 0.0000 137.4625	0.2013 0.2013 0.2013
	751859.75	152155.83		8.0316	0.6039		237.4300	0.6039

eport Stored in ASCII File: l:\data\tchrom\btex\hp\_o\0\_\_\_767.TX0



Software Version: 3.2 <16C20>

Sample Name : 9509884-01A MS B/M

Sample Number: KM ;W;

Time Study : 09/28/95 12:26 : MODWG;1;PQL

Operator : JZL

Channel: A

A/D mV Range : 1024

Instrument : HP\_O AutoSampler : NONE Rack/Vial : 0/0

Interface Serial #:

Data Acquisition Time: 09/28/95 12:04

Delay Time : 0.00 min. End Time : 22.49 min. Sampling Rate : 2.5000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_o\0\_\_769.raw
Result File : l:\data\tchrom\btex\hp\_o\0\_\_769.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\OSG07065.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

Inj. Volume : 2 ul Sample Amount : 1.0000

Area Reject

: 100.00 Dilution Factor : 1.00

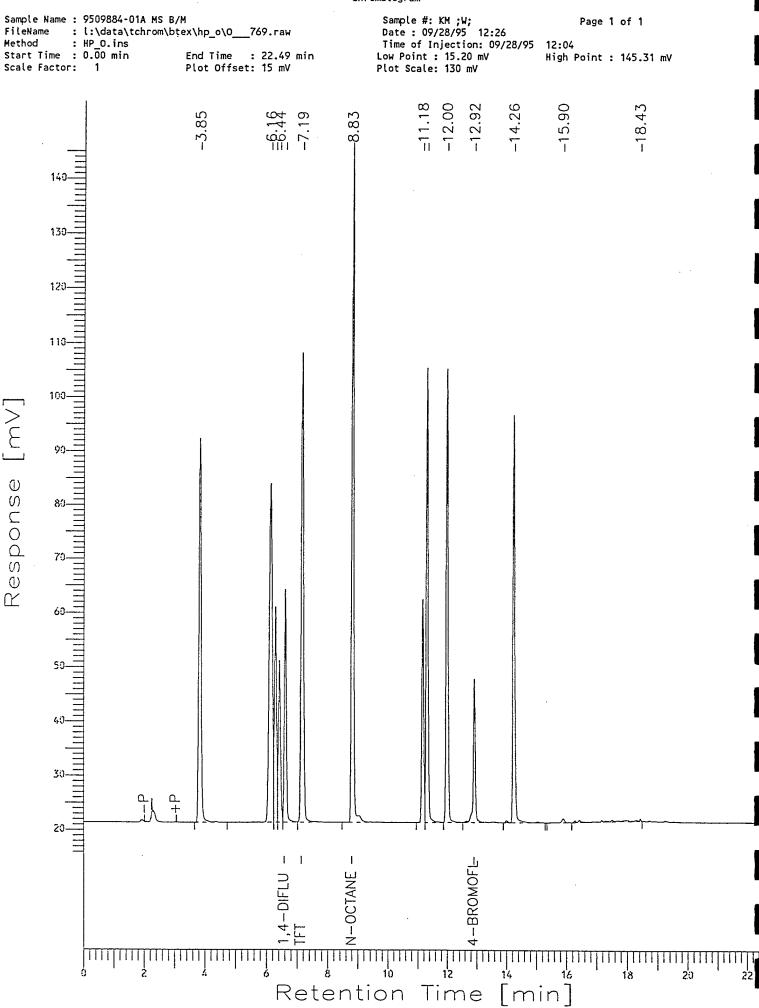
PURFID Area Percent Report

Peak # 	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 12 13 14	3.854 6.158 6.311 6.439 6.631 7.186 8.833 11.178 11.325 11.998 12.922 14.255 15.895 18.426	376071.81 450678.84 189765.08 145580.39 195714.28 459377.06 566355.81 178739.11 370191.16 370908.59 125477.93 337237.28 5616.05 17583.78	71022.98 BV 62721.25 VV 39810.85 VV 29851.64 VV 43051.93 VV 86857.48 VV 123870.63 VB 41316.47 BV 84385.74 VV 84263.96 VV 26625.94 VB 75460.43 BB 752.83 BB 509.88 BB	1.0000e6 1.000e6 1.000e6 9.9999e5 1934.4838 	2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772	1.0145 1.0145 1.0145	1,4-DIFLUOROBENZENE TFT n-Octane 4-BROMOFLUOROBENZENE	0.3761 0.4507 0.1898 0.1456 101.1713 0.0000 140.2148 0.1787 0.3702 0.3709 152.1168 0.3372 0.0056 0.0176	1.0145 1.0145 1.0145 1.0145
		3789297.00	770501.94		37.4808	14.2026		395.9453	14.2026

oup Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT	RAW AMT. PURFID PPM
1 2 4	6.631 7.186 12.922	195714.28 459377.06 125477.93	43051.93 BV 86857.48 VV 26625.94 VB		2.6772 2.6772 2.6772	0.2090	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	101.1713	
		780569.31	156535.34		8.0316	0.6269		253.2881	0.6269

port Stored in ASCII File: l:\data\tchrom\btex\hp\_o\0\_\_769.TX0



mple Name : 9509884-01A MSD B/M Time : 09/28/95 12:55 : MODWG;1;PQL Study Sample Number: KMD;W;

: JZL Operator

strument : HP\_O AutoSampler : NONE

Channel : A A/D mV Range: 1024

Rack/Vial : 0/0

terface Serial #: Data Acquisition Time: 09/28/95 12:32

elay Time : 0.00 min. nd Time : 22.49 min. ampling Rate : 2.5000 pts/sec

w Data File : l:\data\tchrom\btex\hp\_o\0\_\_\_770.raw : l:\data\tchrom\btex\hp\_o\0\_\_770.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins rocess File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc
imple File : L:\DATA\TCHROM\BTEX\METHODS\OSGO7065.smp
requence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

nj. Volume : 2 ul ample Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

### PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11	3.853 6.155 6.310 6.437 6.630 7.185 8.832 11.177 11.323 11.997 12.921	364819.41 443965.13 181434.03 145306.69 193576.25 454097.16 558631.50 175771.83 362933.88 365354.53 122613.85	69437.53 BV 61525.22 VV 38997.81 VV 29189.59 VV 42614.03 VV 85787.11 VV 121203.84 VB 40499.23 BV 82786.95 VV 83022.38 VV 26534.04 VB	1.000e6 1.000e6 1.000e6 1.000e6 1912.2495 	2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772	0.9976 0.9976 0.9976 0.9976 0.9976 0.9976 0.9976 0.9976 0.9976	1,4-DIFLUOROBENZENE TFT n-Octane 4-BROMOFLUOROBENZENE	0.3648 0.4440 0.1814 0.1453 101.2296 0.0000 139.9106 0.1758 0.3629 0.3654 150.3730	0.9976 0.9976 0.9976 0.9976
11 12 13 14 15	12.921 14.253 15.894 16.428 18.423	122613.85 330307.69 6303.92 5935.05 15040.19	26534.04 VB 73694.86 BB 852.49 BB 543.94 BV 527.99 VB	815.3981 1.0000e6 1.0000e6 1.0000e6	2.6772 2.6772 2.6772 2.6772 2.6772	0.9976 0.9976 0.9976 0.9976	4-BKOMOFLUURUBENZENE	0.3303 0.0063 0.0059 0.0150	0.9976 0.9976 0.9976 0.9976
		3726090.75	757217.06		40.1580	14.9632		393.9103	14.9632

Group Report For : SURROGATES

eak R #	tet Time [min]	Area {uV-sec}	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 4	6.630 7.185 12.921	193576.25 454097.16 122613.85	42614.03 BV 85787.11 VV 26534.04 VB		2.6772 2.6772 2.6772	0.2062	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	101.2296 0.0000 150.3730	
		770287.25	154935.19		8.0316	0.6187		251.6026	0.6187

eport Stored in ASCII File: l:\data\tchrom\btex\hp\_o\0\_\_770.TX0

Sample #: KMD;W; Date: 09/28/95 12:55 Page 1 of 1 Sample Name : 9509884-01A MSD B/M FileName : !:\data\tchrom\btex\hp\_o\0\_\_ Time of Injection: 09/28/95 12:32 Method : HP\_O.ins Low Point : 15.34 mV High Point: 142.51 mV End Time : 22.49 min Start Time : 0.00 min Plot Offset: 15 mV Plot Scale: 127 mV Scale Factor: =11.18 -12.00 -12.92 -15.89 -16.43 -14.25-3.85-8.83 Response [mV] 4  \_\_\_\_\_\_

oftware Version: 3.2 <16C2O>

ample Name : BLANK : 09/28/95 01:23 Time Sample Number: B ;W; : MODWG;1;PQL Study Operator : JZL

nstrument : HP\_O AutoSampler : NONE

Channel: A A/D mV Range: 1024

Rack/Vial : 0/0

nterface Serial # : Data Acquisition Time: 09/28/95 01:00

elay Time : 0.00 min. nd Time : 22.49 min. End Time Sampling Rate : 2.5000 pts/sec

bw Data File : l:\data\tchrom\btex\hp\_o\0\_\_771.raw
result File : l:\data\tchrom\btex\hp\_o\0\_\_771.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins rocess File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc
mple File : L:\DATA\TCHROM\BTEX\METHODS\OSG07065.smp equence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

nj. Volume : 2 ul mple Amount : 1.0000 <u>I</u>nj. Volume

Area Reject : 100.00 Dilution Factor : 1.00

## PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7	3.963 6.631 7.184 9.045 12.924 15.893 17.536	5340.22 125881.98 331719.66 12998.27 72991.67 6444.08 2187.78	727.70 BB 26738.46 BV 61891.81 VV 1083.59 VV 13857.02 VB 1075.72 BB 894.45 BB	1396.9055 1.0000e6 595.6514	2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772	0.1493 0.1493 0.1493 0.1493 0.1493 0.1493 0.1493	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	0.0053 90.1149 0.0000 0.0130 122.5409 0.0064 0.0022	0.1493 0.1493 0.1493 0.1493 0.1493
		557563.63	106268.73		18.7404	1.0449		212.6828	1.0449

Group Report For : SURROGATES

ak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 4	6.631 7.184 12.924	125881.98 331719.66 72991.67	26738.46 BV 61891.81 BV 13857.02 VB		2.6772 2.6772 2.6772	0.1421 0.1421	1,4-DIFLUOROBENZENE	90.1149 0.0000	0.1421 0.1421
		530593.31	102487.28		8.0316	0.4262		212.6558	0.4262

FND

Report Stored in ASCII File: 1:\data\tchrom\btex\hp\_o\0\_\_\_771.TX0

Retention Time

ample Name : STD\_0.9 : 09/28/95 06:31 Time Sample Number: TC ;W; Study : MODWG;1;PQL Operator : JZL

Channel: A A/D mV Range: 1024

nstrument : HP\_O AutoSampler : NONE Rack/Vial : 0/0 Rack/Vial

nterface Serial # : Data Acquisition Time: 09/28/95 06:08

: 0.00 min. : 22.49 min. elay Time End Time Sampling Rate : 2.5000 pts/sec

aw Data File : l:\data\tchrom\btex\hp\_o\0\_\_\_782.raw
Result File : l:\data\tchrom\btex\hp\_o\0\_\_\_782.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins rocess File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc ample File : L:\DATA\TCHROM\BTEX\METHODS\OSG07065.smp

equence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

: 2 ul <u>I</u>nj. Volume Area Reject : 100.00 ample Amount : 1.0000 Dilution Factor : 1.00

#### PURFID Area Percent Report

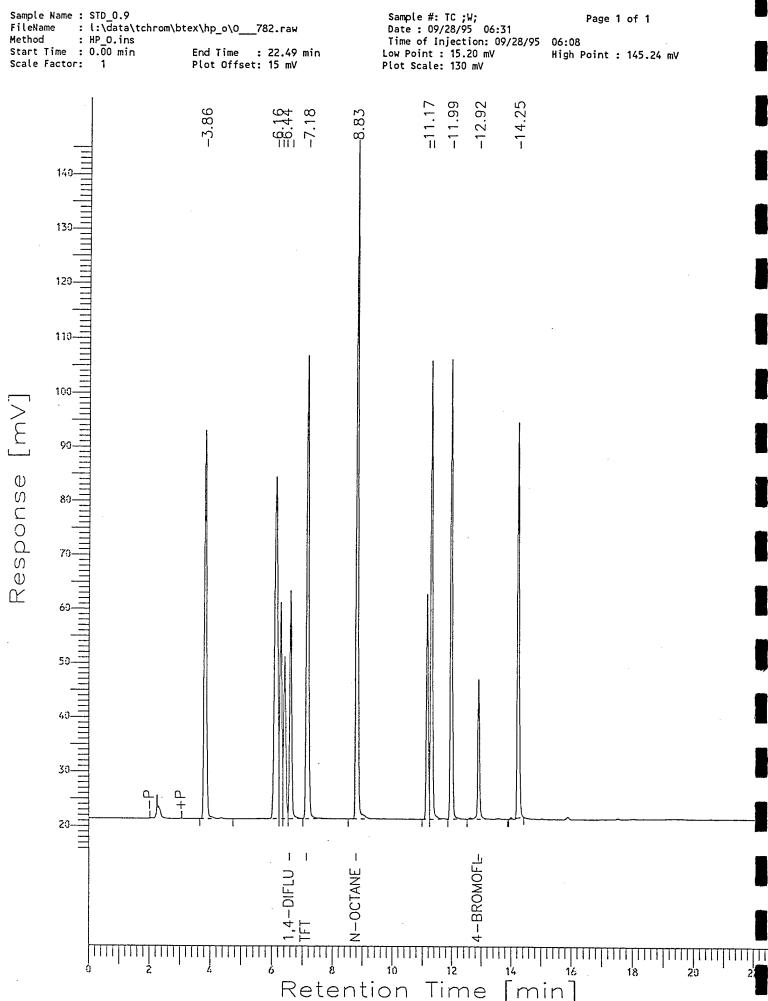
0.80

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 12	3.855 6.156 6.310 6.437 6.630 7.184 8.831 11.174 11.321 11.993 12.917 14.250	376486.25 456071.53 186964.38 149194.14 192648.83 454225.41 564496.69 180152.66 370105.22 373066.63 112864.09 317862.84	71776.46 BV 63241.48 VV 40146.72 VV 29926.13 VV 42359.00 VV 85754.99 VV 124243.73 VB 41557.74 BV 84680.61 VV 84909.30 VV 25838.87 VB 73415.72 BB	1.0000e6 1.0000e6 1.0000e6 1.0000e6 1912.7896 3993.9023 1.0000e6 1.0000e6 1.0000e6 815.6285 1.0000e6	2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772 2.6772	0.9997 0.9997 0.9997 0.9997 0.9997 0.9997 0.9997 0.9997 0.9997	1,4-DIFLUOROBENZENE TFT n-Octane 4-BROMOFLUOROBENZENE	0.3765 0.4561 0.1870 0.1492 100.7162 0.0000 141.3396 0.1802 0.3701 0.3731 138.3769 0.3179	0.9997 0.9997 0.9997 0.9997 0.9997 0.9997 0.9997 0.9997 0.9997
•		3734138.75	767850.75		32.1264	11.9964		382.8425	11.9964

Group Report For : SURROGATES

eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 4	6.630 7.184 12.917	192648.83 454225.41 112864.09	42359.00 BV 85754.99 VV 25838.87 VB		2.6772 2.6772 2.6772	0.2034	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	100.7162 0.0000 138.3769	0.2034
_		759738.38	153952.88		8,0316	0.6102		239.0930	0.6102

Report Stored in ASCII File: l:\data\tchrom\btex\hp o\O 782.TXO



Software Version: 3.2 <16C20>

Sample Name : 9509929-018 GRO Sample Number: SC ;W;5

Time Study

: 09/28/95 22:28 : GROW; 1; PQL

Operator : JZL

Channel: A

A/D mV Range: 1024

Instrument : HP\_O AutoSampler : NONE Rack/Vial : 0/0

Interface Serial #: Data Acquisition Time: 09/28/95 22:06 Delay Time : 0.00 min.

End Time : 22.49 min. Sampling Rate : 2.5000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_o\0\_ Result File : l:\data\tchrom\btex\hp\_o\0\_809.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\OSG07065.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 5.00

assistant 29 Ald 0--797 29

PURFID Area Percent Report

Peak # 	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	3.845	1063194.63	182574.30 BV		2.6772	31.9432	**************	1.0632	6.3886
2	4.104	280633.84	50247.07 VV	1.0000e6	2.6772	31.9432		0.2806	6.3886
3	4.372	52889.89	10720.30 VV	1.0000e6	2.6772	31.9432		0.0529	6.3886
4	4.877	1015816.13	160694.48 VE	1.0000e6	2.6772	31.9432		1.0158	6.3886
5	5.096	12693.38	1833.96 EB	1.0000e6	2.6772	31.9432		0.0127	6.3886
6	5.803	2411273.00	337853.28 BV	1.0000e6	2.6772	31.9432		2.4113	6.3886
7	6.163	3860027.00	528948.13 VE	1.0000e6	2.6772	31.9432		3.8600	6.3886
. 8	6.427	126116.09	17513.76 EV	1.0000e6	2.6772	31.9432		0.1261	6.3886
9	6.630	194284.92	42566.24 VV	6050.3814	2.6772	31,9432	1,4-DIFLUOROBENZENE	32.1112	6.3886
10	7.184	1436768.88	193320.47 VV	••	2.6772	31.9432	TFT	0.0000	6.3886
11	7.342	245670.55	42971.70 VV	1.0000e6	2.6772	31.9432		0.2457	6.3886
12	7.566	65594.77	11496.01 VV	1.0000e6	2.6772	31.9432		0.0656	6.3886
13	7.736	1355312.88	204683.69 VV	1.0000e6	2.6772	31.9432		1.3553	6.3886
14	7.924	1484130.25	198809.88 VV	1.0000e6	2.6772	31.9432		1.4841	6.3886
15	8.204	226869.67	38527.07 VV	1.0000e6	2.6772	31.9432		0.2269	6.3886
16	8.357	639995.00	97935.19 VV	1.0000e6	2.6772	31.9432		0.6400	6.3886
17	8.640	123058.91	19724.60 VV	1.0000e6	2.6772	31.9432		0.1231	6.3886
18	8.925	131258.55	11158.21 VV		2.6772		n-Octane	10.3900	
19	9.223	169445.58	22191.88 VV	1.0000e6	2.6772	31.9432	ii octane		6.3886
20	9.360	62254.92	11390.39 VV	1.0000e6	2.6772	31.9432		0.1695	6.3886
21	9.497	111322.53	20150.02 VV	1.0000e6	2.6772	31.9432		0.0623	6.3886
22	9.702	95952.23	14530.49 VV	1.0000e6	2.6772	31.9432		0.1113	6.3886
23	10.103	295724.06	39595.97 VV	1.0000e6	2.6772	31.9432		0.0960	6.3886
24	10.268	132021.66	22106.51 VV	1.0000e6	2.6772	31.9432		0.2957	6.3886
25	10.397	132642.70	19928.61 VV	1.0000e6	2.6772	31.9432		0.1320	6.3886
26	10.601	255987.11	29710.10 VV	1.0000e6	2.6772	31.9432		0.1326	6.3886
27	10.865	169053.23	26482.12 VV	9.9999e5	2.6772	31.9432		0.2560	6.3886
28	11.184	345636.66	59431.44 VV	1.0000e6	2.6772	31.9432		0.1691	6.3886
29	11.322	898330.00	184866.83 VV	1.0000e6	2.6772	31.9432		0.3456	6.3886
30	11.637	141958.78	15380.96 VV	9.9999e5	2.6772	31.9432		0.8983	6.3886
31	11.877	131026.32	15547.77 VV	9.9999e5	2.6772			0.1420	6.3886
32	12.019	198742.47	35899.95 VV	1.0000e6	2.6772	31.9432		0.1310	6.3886
33	12.261	194034.78	22441.46 VV	1.0000e6	2.6772	31.9432		0.1987	6.3886
34	12.386	174438.22	26409.56 VV	1.0000e6	2.6772	31.9432		0.1940	6.3886
35	12.651	462881.41	57912.06 VV	1.0000e6	2.6772	31.9432		0.1744	6.3886
36	12.915	229745.64	38839.43 VV	2579.9297	2.6772	31.9432		0.4629	6.3886
37	13.072	184722.75	20655.60 VV	1.0000e6	2.6772	31.9432	4-BROMOFLUOROBENZENE	89.0511	6.3886
38	13.313	106293.45	17725.87 VV	1.0000e6	2.6772	31.9432		0.1847	6.3886
39	13.492	395195.06	62802.86 VV	1.0000e6	2.0//2	31.9432		0.1063	6.3886
40	13.602	137093.91	29204.99 VV	1.0000e6	2.6772	31.9432		0.3952	6.3886
41	13.975	416165.31	54311.88 VE		2.6772	31.9432		0.1371	6.3886
42	14.124	49019.07		1.0000e6	2.6772	31.9432		0.4162	6.3886
43	14.250	294591.44	9369.77 EV	9.9999e5	2.6772	31.9432		0.0490	6.3886
44	14.375	137937.02	61623.12 VV	1.0000e6	2.6772	31.9432		0.2946	6.3886
45	14.649		17948.32 VV	1.0000e6	2.6772	31.9432		0.1379	6.3886
46	14.838	299481.25	25727.50 VV	1.0000e6	2.6772	31.9432		0.2995	6.3886
47		119340.36	19223.47 VV	1.0000e6	2.6772	31.9432		0.1193	6.3886
	15.025	229821.92	41685.46 VE	1.0000e6	2.6772	31.9432		0.2298	6.3886
48	15.221	49913.32	6675.83 EV	1.0000e6	2.6772	31.9432		0.0499	6.3886
49 50	15.404	87132.48	17122.93 VV	1.0000e6	2.6772	31.9432		0.0871	6.3886
50	15.545	262506.34	23488.35 VV	1.0000e6	2.6772	31.9432		0.2625	6.3886

15. 932 178874.39 21262.40 vv 1.0000e6 2.6772 31.9432 16.070 99548.27 20294.73 vv 1.0000e6 2.6772 31.9432 17.0000e6  2.6772 31.9432 17.00000e6 2.6772 31.9432 17.000000000000000000000000000000000000									
53       16.070       99548.27       20294.73       W       1.0000e6       2.6772       31.9432         54       16.251       150373.48       21234.57       W       1.0000e6       2.6772       31.9432         55       16.376       78988.96       23394.12       W       1.0000e6       2.6772       31.9432         56       16.431       157731.78       33743.93       W       9.9999e5       2.6772       31.9432         57       16.563       133108.02       25875.11       W       9.9999e5       2.6772       31.9432         58       16.689       39431.65       12443.43       W       9.9999e5       2.6772       31.9432         59       16.785       72351.00       13692.26       W       1.0000e6       2.6772       31.9432         60       16.878       66623.45       16477.18       W       9.9999e5       2.6772       31.9432         61       16.960       192448.47       47852.51       W       1.0000e6       2.6772       31.9432         62       17.059       72137.66       12947.49       W       1.0000e6       2.6772       31.9432         63       17.185       58069.13       15137.82	51					2.6772	31.9432	0.1283	6.3886
54         16.251         150373.48         21234.57         W         1.0000e6         2.6772         31.9432           55         16.376         78988.96         23394.12         W         1.0000e6         2.6772         31.9432           56         16.431         157731.78         33743.93         W         9.9999e5         2.6772         31.9432           57         16.563         133108.02         25875.11         W         9.9999e5         2.6772         31.9432           58         16.689         39431.65         12443.43         W         9.9999e5         2.6772         31.9432           60         16.878         66623.45         16477.18         W         9.9999e5         2.6772         31.9432           61         16.960         192448.47         47852.51         W         1.0000e6         2.6772         31.9432           62         17.059         72137.66         12947.49         W         1.0000e6         2.6772         31.9432           63         17.185         58069.13         15137.82         W         1.0000e6         2.6772         31.9432           64         17.297         62504.17         14664.27         W         1.0000e6         <	52	15.932						0.1789	6.3886
55         16.376         7898.96         23394.12         W         1.0000e6         2.6772         31.9432           56         16.431         157731.78         33743.93         W         9.9999e5         2.6772         31.9432           57         16.563         133108.02         25875.11         W         9.9999e5         2.6772         31.9432           58         16.689         39431.65         12443.43         W         9.9999e5         2.6772         31.9432           59         16.785         72351.00         13692.26         W         1.0000e6         2.6772         31.9432           60         16.878         66623.45         16477.18         W         9.9999e5         2.6772         31.9432           61         16.960         192448.47         47852.51         W         1.0000e6         2.6772         31.9432           62         17.059         72137.66         12947.49         W         1.0000e6         2.6772         31.9432           63         17.185         58069.13         15137.82         W         1.0000e6         2.6772         31.9432           64         17.297         62504.17         14664.27 W         1.0000e6         2.6772	53	16.070	99548.27	20294.73 VV				0.0996	6.3886
56         16.431         157731.78         33743.93         VV         9.9999e5         2.6772         31,9432           57         16.563         133108.02         25875.11         VV         9.9999e5         2.6772         31,9432           58         16.689         39431.65         12443.43         VV         9.9999e5         2.6772         31,9432           59         16.785         72351.00         13692.26         VV         1.0000e6         2.6772         31,9432           60         16.878         66623.45         16477.18         VV         9.9999e5         2.6772         31,9432           61         16.960         192448.47         47852.51         VV         1.0000e6         2.6772         31,9432           62         17.059         72137.66         12947.49         V         1.0000e6         2.6772         31,9432           63         17.185         58069.13         15137.82         VV         1.0000e6         2.6772         31,9432           64         17.297         62504.17         14664.27         VV         1.0000e6         2.6772         31,9432           65         17.389         135385.08         18874.80         VV         1.0000e6	54	16.251	150373.48	21234.57 VV				0.1504	6.3886
57       16.563       133108.02       25875.11       VV       9.9999e5       2.6772       31.9432         58       16.689       39431.65       12443.43       VV       9.9999e5       2.6772       31.9432         59       16.785       72351.00       13692.26       VV       1.0000e6       2.6772       31.9432         60       16.878       66623.45       16477.18       VV       9.9999e5       2.6772       31.9432         61       16.960       192448.47       47852.51       VV       1.0000e6       2.6772       31.9432         62       17.059       72137.66       12947.49       VV       1.0000e6       2.6772       31.9432         63       17.185       58069.13       15137.82       VV       1.0000e6       2.6772       31.9432         64       17.297       62504.17       14664.27       VV       1.0000e6       2.6772       31.9432         65       17.389       135385.08       18874.80       VV       1.0000e6       2.6772       31.9432         66       17.491       74807.48       17781.94       VV       9.9999e5       2.6772       31.9432         67       17.632       48937.59       10841.75	55	16.376	78988.96	23394.12 VV				0.0790	6.3886
58         16.689         39431.65         12443.43         VV         9.9999e5         2.6772         31.9432           59         16.785         72351.00         13692.26         VV         1.0000e6         2.6772         31.9432           60         16.878         66623.45         16477.18         VV         9.9999e5         2.6772         31.9432           61         16.960         19248.47         47852.51         VV         1.0000e6         2.6772         31.9432           62         17.059         72137.66         12947.49         VV         1.0000e6         2.6772         31.9432           63         17.185         58069.13         15137.82         VV         1.0000e6         2.6772         31.9432           64         17.297         62504.17         14664.27         VV         1.0000e6         2.6772         31.9432           65         17.389         135385.08         18874.80         VV         1.0000e6         2.6772         31.9432           66         17.491         74807.48         17781.94         VV         9.9999e5         2.6772         31.9432           67         17.632         48937.59         10841.75         VV         1.0000e6	6	16.431	157731.78	33743.93 VV	9.9999e5			0.1577	6.3886
59       16.785       72351.00       13692.26 W       1.0000e6       2.6772       31.9432         60       16.878       66623.45       16477.18 W       9.9999e5       2.6772       31.9432         61       16.960       192448.47       47852.51 VV       1.0000e6       2.6772       31.9432         62       17.059       72137.66       12947.49 VV       1.0000e6       2.6772       31.9432         63       17.185       58069.13       15137.82 VV       1.0000e6       2.6772       31.9432         64       17.297       62504.17       14664.27 VV       1.0000e6       2.6772       31.9432         65       17.389       135385.08       18874.80 VV       1.0000e6       2.6772       31.9432         66       17.491       74807.48       17781.94 VV       9.9999e5       2.6772       31.9432         67       17.632       48937.59       10841.75 VV       1.0000e6       2.6772       31.9432         68       17.692       40970.20       11338.21 VV       1.0000e6       2.6772       31.9432         69       17.764       42779.07       11272.20 VV       1.0000e6       2.6772       31.9432         71       17.957       58239.	57	16.563	133108.02	25875.11 VV	9.9999e5	2.6772	31.9432	0.1331	6.3886
60 16.878 66623.45 16477.18 VV 9.9999e5 2.6772 31.9432 61 16.960 19248.47 47852.51 VV 1.0000e6 2.6772 31.9432 62 17.059 72137.66 12947.49 VV 1.0000e6 2.6772 31.9432 63 17.185 58069.13 15137.82 VV 1.0000e6 2.6772 31.9432 64 17.297 62504.17 14664.27 VV 1.0000e6 2.6772 31.9432 65 17.389 135385.08 18874.80 VV 1.0000e6 2.6772 31.9432 66 17.491 74807.48 17781.94 VV 9.9999e5 2.6772 31.9432 67 17.632 48937.59 10841.75 VV 1.0000e6 2.6772 31.9432 68 17.692 40970.20 11338.21 VV 1.0000e6 2.6772 31.9432 69 17.764 42779.07 11272.20 VV 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432	58	16.689	39431.65	12443.43 VV	9.9999e5	2.6772	31.9432	0.0394	6.3886
61 16.960 192448.47 47852.51 VV 1.0000e6 2.6772 31.9432 62 17.059 72137.66 12947.49 VV 1.0000e6 2.6772 31.9432 63 17.185 58069.13 15137.82 VV 1.0000e6 2.6772 31.9432 64 17.297 62504.17 14664.27 VV 1.0000e6 2.6772 31.9432 65 17.389 135385.08 18874.80 VV 1.0000e6 2.6772 31.9432 66 17.491 74807.48 17781.94 VV 9.9999e5 2.6772 31.9432 67 17.632 48937.59 10841.75 VV 1.0000e6 2.6772 31.9432 68 17.692 40970.20 11338.21 VV 1.0000e6 2.6772 31.9432 69 17.764 42779.07 11272.20 VV 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432	59	16.785	72351.00	13692.26 VV	1.0000e6	2.6772	31.9432	0.0724	6.3886
62 17.059 72137.66 12947.49 VV 1.0000e6 2.6772 31.9432 63 17.185 58069.13 15137.82 VV 1.0000e6 2.6772 31.9432 64 17.297 62504.17 14664.27 VV 1.0000e6 2.6772 31.9432 65 17.389 135385.08 18874.80 VV 1.0000e6 2.6772 31.9432 66 17.491 74807.48 17781.94 VV 9.9999e5 2.6772 31.9432 67 17.632 48937.59 10841.75 VV 1.0000e6 2.6772 31.9432 68 17.692 40970.20 11338.21 VV 1.0000e6 2.6772 31.9432 69 17.764 42779.07 11272.20 VV 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432	50	16.878	66623.45	16477.18 VV	9.9999e5	2.6772	31.9432	0.0666	6.3886
62 17.059 72137.66 12947.49 VV 1.0000e6 2.6772 31.9432 63 17.185 58069.13 15137.82 VV 1.0000e6 2.6772 31.9432 64 17.297 62504.17 14664.27 VV 1.0000e6 2.6772 31.9432 65 17.389 135385.08 18874.80 VV 1.0000e6 2.6772 31.9432 66 17.491 74807.48 17781.94 VV 9.9999e5 2.6772 31.9432 67 17.632 48937.59 10841.75 VV 1.0000e6 2.6772 31.9432 68 17.692 40970.20 11338.21 VV 1.0000e6 2.6772 31.9432 69 17.764 42779.07 11272.20 VV 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432	51	16.960	192448.47	47852.51 VV	1.0000e6	2.6772	31.9432	0.1925	6.3886
64 17.297 62504.17 14664.27 W 1.0000e6 2.6772 31.9432 65 17.389 135385.08 18874.80 W 1.0000e6 2.6772 31.9432 66 17.491 74807.48 17781.94 W 9.9999e5 2.6772 31.9432 67 17.632 48937.59 10841.75 W 1.0000e6 2.6772 31.9432 68 17.692 40970.20 11338.21 W 1.0000e6 2.6772 31.9432 69 17.764 42779.07 11272.20 W 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 W 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 W 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 W 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 W 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 W 1.0000e6 2.6772 31.9432 75 18.383 27175.71 6044.89 W 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 W 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 W 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 W 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 W 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 W 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 W 1.0000e6 2.6772 31.9432		17.059	72137.66	12947.49 VV	1.0000e6	2.6772	31.9432	0.0721	6.3886
64 17.297 62504.17 14664.27 VV 1.0000e6 2.6772 31.9432 65 17.389 135385.08 18874.80 VV 1.0000e6 2.6772 31.9432 66 17.491 74807.48 17781.94 VV 9.9999e5 2.6772 31.9432 67 17.632 48937.59 10841.75 VV 1.0000e6 2.6772 31.9432 68 17.692 40970.20 11338.21 VV 1.0000e6 2.6772 31.9432 69 17.764 42779.07 11272.20 VV 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432	53	17.185	58069.13	15137.82 VV	1.0000e6	2.6772	31.9432	0.0581	6.3886
65 17.389 135385.08 18874.80 VV 1.0000e6 2.6772 31.9432 66 17.491 74807.48 17781.94 VV 9.9999e5 2.6772 31.9432 67 17.632 48937.59 10841.75 VV 1.0000e6 2.6772 31.9432 68 17.692 40970.20 11338.21 VV 1.0000e6 2.6772 31.9432 69 17.764 42779.07 11272.20 VV 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 79 18.910 79 79 79 79 79 79 79 79 79 79 79 79 79	54	17.297		14664.27 VV	1.0000e6	2.6772	31.9432	0.0625	6.3886
66 17.491 74807.48 17781.94 VV 9.9999e5 2.6772 31.9432 67 17.632 48937.59 10841.75 VV 1.0000e6 2.6772 31.9432 68 17.692 40970.20 11338.21 VV 1.0000e6 2.6772 31.9432 69 17.764 42779.07 11272.20 VV 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432				18874.80 VV	1.0000e6	2.6772	31.9432	0.1354	6.3886
67 17.632 48937.59 10841.75 VV 1.0000e6 2.6772 31.9432 68 17.692 40970.20 11338.21 VV 1.0000e6 2.6772 31.9432 69 17.764 42779.07 11272.20 VV 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432							31.9432	0.0748	6.3886
68 17.692 40970.20 11338.21 VV 1.0000e6 2.6772 31.9432 69 17.764 42779.07 11272.20 VV 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432				10841.75 VV	1.0000e6		31.9432	0.0489	6.3886
69 17.764 42779.07 11272.20 VV 1.0000e6 2.6772 31.9432 70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432							31.9432	0.0410	6.3886
70 17.841 28402.32 7289.59 VV 1.0000e6 2.6772 31.9432 71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432							31.9432	0.0428	6.3886
71 17.957 58239.45 9888.19 VV 1.0000e6 2.6772 31.9432 72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432							31.9432	0.0284	6.3886
72 18.054 29095.32 7250.94 VV 1.0000e6 2.6772 31.9432 73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432							31.9432	0.0582	6.3886
73 18.119 52259.31 9481.69 VV 1.0000e6 2.6772 31.9432 74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432						2.6772	31.9432	0.0291	6.3886
74 18.247 28513.76 10456.42 VV 1.0000e6 2.6772 31.9432 75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432						2.6772	31.9432	0.0523	6.3886
75 18.337 27175.71 6044.89 VV 1.0000e6 2.6772 31.9432 76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432							31.9432	0.0285	6.3886
76 18.388 49085.88 8205.99 VV 1.0000e6 2.6772 31.9432 77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432							31.9432	0.0272	6.3886
77 18.607 19665.44 3264.55 VV 9.9999e5 2.6772 31.9432 78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432								0.0491	6.3886
78 18.746 8937.04 2524.60 VV 1.0000e6 2.6772 31.9432 79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432								0.0197	6.3886
79 18.813 6486.40 2315.38 VV 1.0000e6 2.6772 31.9432 80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432								0.0089	6.3886
80 18.931 14552.08 2478.72 VV 1.0000e6 2.6772 31.9432 81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432								0.0065	6.3886
81 19.069 11331.39 1937.98 VB 1.0000e6 2.6772 31.9432								0.0146	6.3886
								0.0113	6.3886
23843110 00 3 6666 216 8532 2587 3940	D I	17.007	7	17J1.70 VD	1.000000	2.0112	J1.77JC		
23003110.00 3.0000		2	23863110.00	3.66e6		216.8532	2587.3940	153.4234	517.4794

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]		rea/ mount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 4	6.630 7.184 12.915	194284.92 1436768.88 229745.64	42566.24 BV 609 193320.47 VV 38839.43 VV 25		2.6772 2.6772 2.6772	2.4909	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	32.1112 0.0000 89.0511	
		1860799.38	274726.13		8.0316	7.4726		121.1623	1.4945

END

Report Stored in ASCII File: l:\data\tchrom\btex\hp\_o\0\_\_809.TX0

## Chromatogram

Sample Name : 9509929-01B GRO

: l:\data\tchrom\btex\hp\_o\0\_\_\_809.raw FileName

Method : HP\_O.ins

Start Time : 0.00 min Scale Factor: 1

End Time : 22.49 min

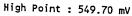
Plot Offset: -5 mV

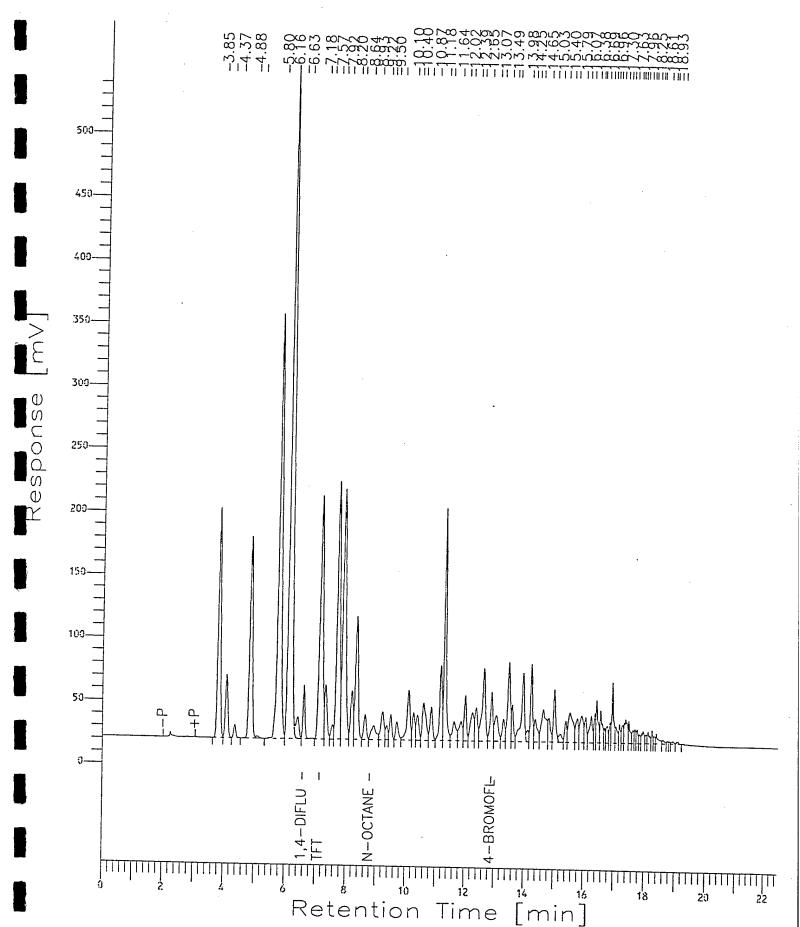
Sample #: SC ;W;5 Date : 09/28/95 22:28

Time of Injection: 09/28/95 22:06 Low Point : -5.03 mV

Plot Scale: 555 mV

Page 1 of 1





Software Version: 3.2 <16C20> : 07/06/95 14:15 Sample Name : 0.18 Time : MODSG;1;PQL Sample Number: TC;S;1 Study : RR Operator Channel: A A/D mV Range: 1024 Instrument : HP\_0 AutoSampler : NONE Rack/Vial : 0/0 Interface Serial # : Data Acquisition Time: 07/06/95 13:51 Delay Time : 0.00 min. End Time : 24.38 min. Sampling Rate : 2.5000 pts/sec Raw Data File : l:\data\tchrom\btex\hp\_o\0\_\_\_174.raw
Result File : l:\data\tchrom\btex\hp\_o\0\_\_174.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\OSG06215.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq X=2.6772 PSD %= 4.67% : 100.00 Inj. Volume : 2 ul Area Reject Dilution Factor : 1.00 Sample Amount : 1.0000 PURFID Area Percent Report RF VALUE PURFID AMT. Component RAW AMT RAW AMT. Height BL Peak Ret Time Area Area/ PURFID PPM PPB (min) [uV-sec] Amount PPM Name 3.6800 0.5782 0.0471 0.5782 4.793 94289.91 14114.50 BV 2.0000e6 0.5782 23.1078 0.5782 106332.95 13596.61 VV 4601.6108 3.6800 Benzene 7.702 9329.39 VV 0.0242 0.5782 7.843 48452.59 2.0000e6 3.6800 0.5782 6207.54 VV 3.6800 0.5782 0.0167 0.5782 8.052 33329.38 2.0000e6 3.6800 92.1226 0.5782 0.5782 1,4-DIFLUOROBENZENE 5 8.243 207322.39 43939.88 VV 2250.5051 0.5782 0.0000 93592.15 VV 3.6800 0.5782 TFT 6 8.873 507081.06 29275.17 VB 4592.9839 30.9284 0.5782 142053.61 3.6800 0.5782 Toluene 10.612 10.7058 0.5782 0.5782 Ethyl\_Benzene 13.037 43687.28 9887.69 BV 4080.7319 3.6800 m and p Xylene 24.3402 0.5782 20332.52 VV 3799.1519 3.6800 0.5782 13.186 92471.98 Q 0.5782 0.5782 o-Xylene 22.7244 3.6800 10 13.863 90302.79 20134.99 VV 3973.8272 0.5782 4-BROMOFLUOROBENZENE 0.5782 28042.97 VV 1273.9037 3.6800 93.8448 119549.22 14.792 11 0.5782 3.6800 0.5782 0.0424 18235.21 VB 12 16.125 84827.99 2.0000e6 0.5782 0.0001 19.972 244.31 526.90 BB 2.0000e6 3.6800 0.5782 13 0.0006 0.5782 3.6800 512.82 BB 1199.20 1.9999e6 14 20.192 8.0945 8,0945 297,9050 307728.34 51.5200 1571144.63 Group Report For : SURROGATES PURFID AMT. RAW AMT RAW AMT. RF VALUE Component Peak Ret Time Height BL Area/ PPB PURFID PPM # Amount PPM Name [min] [uV-sec] 0.3069 1,4-DIFLUOROBENZENE 92.1226 0.3069 3.6800 2 8.243 207322.39 43939.88 VV 2250.5051 93592.15 VV -----0.3069 TFT 0.0000 0.3069 3.6800 3 8.873 507081.06 93.8448 0.3069 0.3069 4-BROMOFLUOROBENZENE 28042.97 BV 1273.9037 3.6800 14.792 119549.22 185.9674 0.9207 0.9207 833952.63 165575.00 11.0400

Report Stored in ASCII File: L:\data\tchrom\btex\hp\_o\0\_\_174.TX0



Sample #: TC ;S;1 Date : 07/06/95 14:15 Page 1 of 1 ple Name: 0.18 : l:\data\tchrom\btex\hp\_o\0\_\_\_174.raw FileName Time of Injection: 07/06/95 13:51 : HP\_O.ins Low Point : 16.74 mV High Point : 115.02 mV End Time : 24.38 min art Time :  $0.\overline{00}$  min ale Factor: Plot Scale: 98 mV Plot Offset: 17 mV -14.79\_19.97 =13.04 -13.86 -16.13-10.61115-110 105 100 85 d+-℩ ETHYL\_BEN = 4-BROMOFL-O-XYLENE BENZENE 1,4 – DIFLU TFT TOLUENE 22 [min] Retention Time

Sample Name : 0.36 Time : 07/06/95 14:46 Sample Number: TC;S;1 Study : MODSG;1;PQL

Operator : RR

Instrument : HP\_O

Channel: A A/D mV Range: 1024

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial #: Data Acquisition Time: 07/06/95 14:22

Delay Time : 0.00 min. End Time : 24.38 min. Sampling Rate : 2.5000 pts/sec

Raw Data File : L:\data\tchrom\btex\hp\_o\0\_\_175.raw
Result File : L:\data\tchrom\btex\hp\_o\0\_\_175.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\OSG06215.smp

Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

Inj. Volume : 2 ul
Sample Amount : 1.0000

Area Reject : 100.00

Dilution Factor : 1.00

#### PURFID Area Percent Report

0.34 = 0.0026187 137.46764

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	4.794	181721.17	26899.07 BV	2.0000e6	3.6800	0.8065		0.0909	0.8065
2	7.701	194207.61	25478.05 VV	4486.6480	3.6800	0.8065	Benzene	43.2857	0.8065
3	7.841	90358.30	17874.42 VV	2.0000e6	3.6800	0.8065		0.0452	0.8065
4	8.049	62328.23	11662.22 VV	2.0000e6	3.6800	0.8065		0.0312	0.8065
5	8.241	200259.69	42420.46 VV	2194.2803	3.6800	0.8065	1,4-DIFLUOROBENZENE	91.2644	0.8065
6	8.871	494412.56	91068.14 VV		3.6800	0.8065	TFT	0.0000	0.8065
7	10.609	263516.47	56394.76 VB	4478.2358	3.6800	0.8065	Toluene	58.8438	0.8065
8	13.034	83173.69	19041.78 BV	3978.7820	3.6800	0.8065	Ethyl_Benzene	20.9043	0.8065
9	13.183	171836.25	38696.47 VV	3704.2368	3.6800	0.8065	m and p Xylene	46.3891	0.8065
10	13.862	169618.28	38349.82 VV	3874.5481	3.6800	0.8065	o-Xylene	43.7776	0.8065
11	14.792	122280.63	29542.50 VV	1242.0775	3.6800	0.8065	4-BROMOFLUOROBENZENE	98.4485	0.8065
12	16,125	153081.86	34997.01 VB	2.0000e6	3.6800	0.8065		0.0765	0.8065
13	19.967	3785.76	2852.25 BB	2.0000e6	3.6800	0.8065		0.0019	0.8065
14	20.189	1048.75	442.86 BB	2.0000e6	3.6800	0.8065		0.0005	0.8065
		2191629.25	435719.78		51.5200	11.2913		403.1595	11.2913

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	8.241 8.871 14.792	200259.69 494412.56 122280.63	42420.46 VV 91068.14 VV 29542.50 BV		3.6800 3.6800 3.6800	0.3006	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	91.2644 0.0000 98.4485	0.3006
		816952.88	163031.09		11.0400	0.9019		189.7129	0.9019

END

Report Stored in ASCII File: L:\data\tchrom\btex\hp\_o\0\_\_\_175.TX0

ample Name : 0.36 Sample #: TC ;S;1 Page 1 of 1 : l:\data\tchrom\btex\hp\_o\0\_\_175.raw Date: 07/06/95 14:46 Method : HP\_0.ins Time of Injection: 07/06/95 14:22 Start Time : 0.00 min End Time : 24.38 min Low Point : 16.88 mV High Point : 112.26 mV Scale Factor: Plot Offset: 17 mV Plot Scale: 95 mV -10.61=13.03-13.86 -14.79-16.13\_19.97 Ф. ETHYL\_BEN = O-XYLENE -4--BROMOFL-BENZENE 1,4 – DIFLU TFT TOLUENE Retention Time

Sample Name : 0.72 Sample Number: TC ;S;1 Time Study : 07/06/95 15:22 : MODSG;1;PQL

Operator : RR

instrument : HP\_0
AutoSampler : NONE
Rack/Vial : 0/0

Channel : A

A/D mV Range: 1024

 $\frac{0.77}{273.07633}$  = 0 m 2.6366

Interface Serial #: Data Acquisition Time: 07/06/95 14:53

Delay Time : 0.00 min. End Time : 24.38 min. Sampling Rate : 2.5000 pts/sec

Raw Data file : l:\data\tchrom\btex\hp\_o\0\_\_176.raw
Result File : l:\data\tchrom\btex\hp\_o\0\_\_176.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\OSG06215.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

Inj. Volume : 2 ul
Sample Amount : 1.0000

Area Reject : 100.0

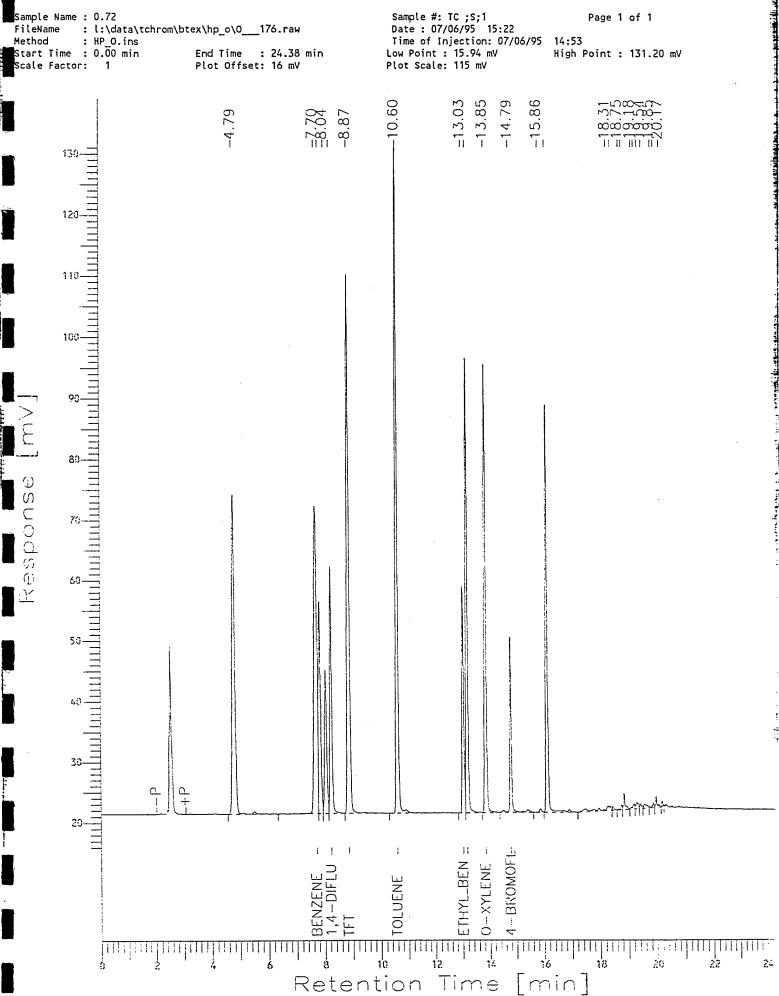
Dilution Factor : 1.00

## PURFID Area Percent Report

P	eak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
Ρ.			Area [uV-sec] 353334.47 385719.97 178543.08 125337.87 194738.81 484228.19 506668.94 162713.03 329441.97 325196.25 125431.77 3443.58	[uV] 52905.31 BV 50951.72 VV 35166.49 VV 23846.76 VV 40961.25 VV	2.0000e6 4394.2275 2.0000e6 2.0000e6	3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800		Name Benzene	9PB 0.1767 87.7788 0.0893 0.0627 90.6149 0.0000 115.5199 41.7553 90.8071 85.6967 103.1094 0.0017	1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009
	13 14 15 16 17 18 19 20 21 22 23 24	16.118 18.308 18.443 18.746 18.842 19.184 19.278 19.391 19.541 19.854 19.957 20.169	290015.78 18066.36 2784.05 3412.93 11352.50 4524.70 6379.83 4098.53 5872.22 4253.63 7147.06 2456.58	67641.46 VB 818.96 BV 696.12 VB 826.56 BV 2715.75 VV 848.00 VV 1076.35 VV 822.22 VV 758.29 VV 758.29 VV 837.96 VV 1867.90 VB 941.02 BB	2.0000e6 2.0000e6 2.0000e6 2.0000e6 2.0000e6 2.0000e6 1.9999e6 2.0000e6 1.9999e6 2.0000e6	3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800	1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009		0.1450 0.0090 0.0014 0.0017 0.0057 0.0023 0.0021 0.0021 0.0021 0.0036 0.0012	1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009 1.3009
			3535162.00	699594.56		88.3200	31.2226		017.1727	31.2220

Group Report For : SURROGATES

Peak #	Ret Time (min)	Area [uV-sec]	Height BL Are [uV] Amo	a/ RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	8.235 8.865 14.785	194738.81 484228.19 125431.77	88911.91 VV	2.0806 3.6800 3.6800 3.4921 3.6800	0.2960	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	90.6149 0.0000 103.1094	0.2960
	•••••	804398.75	158951.44	11.0400	0.8881		193.7244	0.8881



Sample Name : 0.9 Sample Number: TC ;S;1 Time Study : 07/06/95 15:49 : MODSG;1;PQL

: RR Operator

Instrument : HP\_O

Channel: A

A/D mV Range: 1024

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : Data Acquisition Time: 07/06/95 15:24

Delay Time : 0.00 min. End Time : 24.38 min. Sampling Rate : 2.5000 pts/sec <u>0.9</u> = 2.7075 332.409

Raw Data File : l:\data\tchrom\btex\hp\_o\0\_\_\_177.raw
Result File : l:\data\tchrom\btex\hp\_o\0\_\_\_177.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc : L:\DATA\TCHROM\BTEX\METHODS\OSG06215.smp Sample File Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

#### PURFID Area Percent Report

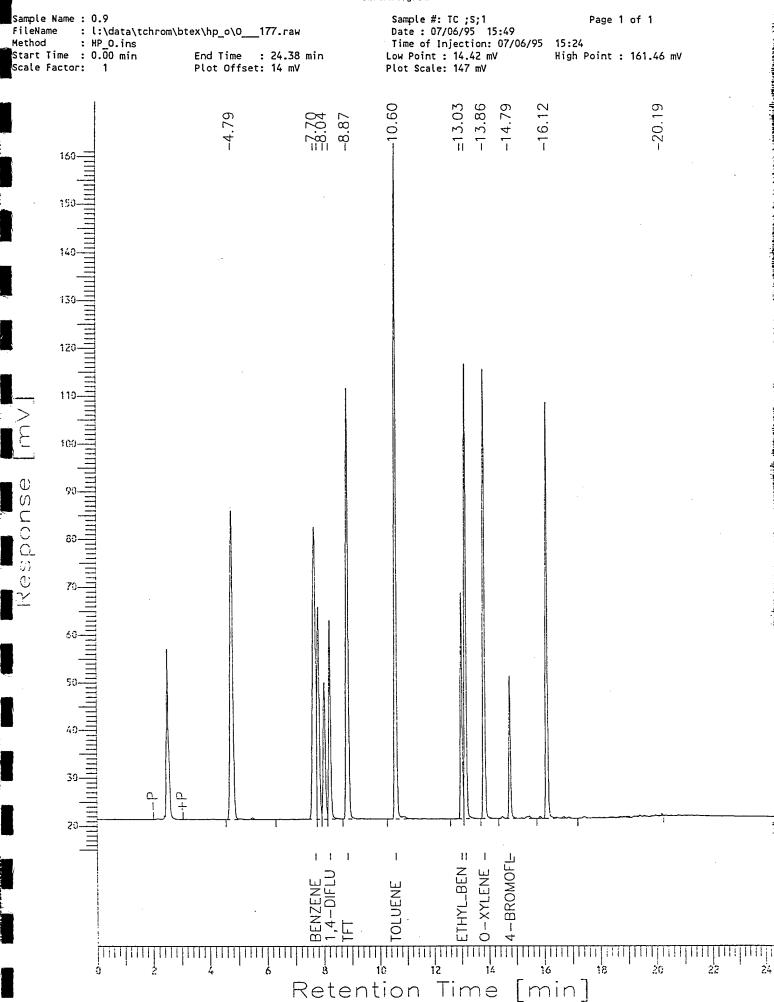
Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 12 13	4.793 7.698 7.837 8.044 8.237 8.866 10.604 13.027 13.177 13.856 14.786 16.119 20.189	432749.47 460382.94 228258.84 150719.55 198492.41 490168.16 638954.19 205818.81 416454.41 413706.50 131211.95 373286.97 3758.17	64671.77 BV 61334.79 VV 44652.13 VV 28733.06 VV 41926.87 VV 90246.78 VV 140418.59 VV 47511.89 VV 95918.94 VV 94529.52 VV 30010.54 VV 87271.08 VB 468.92 BB	2.0000e6 4448.1314 2.0000e6 1.9999e6 2175.4431 	3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800	1.5250 1.5250 1.5250 1.5250 1.5250 1.5250 1.5250	Benzene  1,4-DIFLUOROBENZENE TFT Toluene Ethyl_Benzene m and p Xylene o-Xylene 4-BROMOFLUOROBENZENE	0.2164 103.5003 0.1141 0.0754 91.2423 0.0000 143.9154 52.1770 113.4000 107.7000 106.5538 0.1866 0.0019	1.5250 1.5250 1.5250 1.5250 1.5250 1.5250 1.5250 1.5250 1.5250 1.5250
		4148962.50	827694.88		47.8400	19.8247		719.0833	19.8247

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	8.237 8.866 14.786	198492.41 490168.16 131211.95	41926.87 VV 90246.78 VV 30010.54 VV		3.6800 3.6800 3.6800	0.3017	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	91.2423 0.0000 106.5538	0.3017
		8 9872.50	162184.19		11.0400	0.9051		197.7961	0.9051

\_\_\_\_\_\_\_\_\_\_

Report Stored in ASCII File: L:\data\tchrom\btex\hp\_o\0\_\_177.TX0



Sample Name : 1.8 Sample Number: TC ;S;1 Operator

Time Study : 07/06/95 16:20 : MODSG;1;PQL

: RR

Instrument : HP 0

Channel: A

A/D mV Range: 1024

 $\frac{1.8}{653.2574} = 2.7554$ 

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial #: Data Acquisition Time: 07/06/95 15:56

Delay Time : 0.00 min. End Time : 24.38 min. Sampling Rate : 2.5000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_o\0\_\_\_178.raw Result File : l:\data\tchrom\btex\hp o\0 178.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc Sample File : L:\DATA\TCHROM\BTEX\METHODS\OSG06215.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

: 2 ul Sample Amount : 1.0000

: 100.00 Area Reject Dilution Factor : 1.00

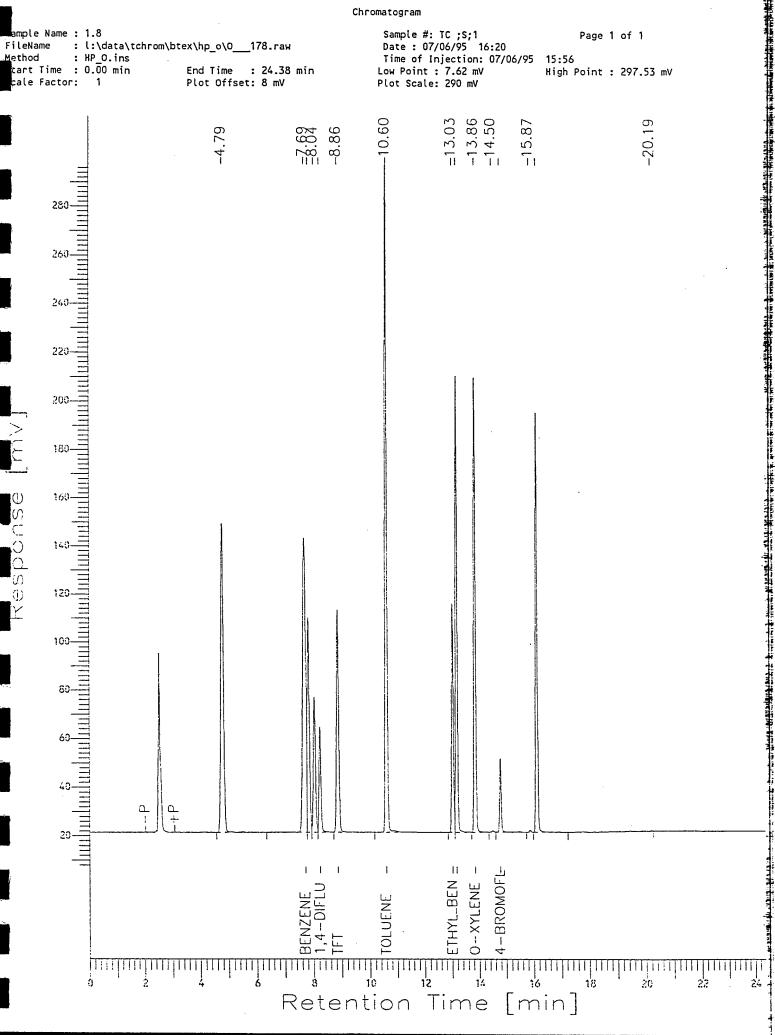
## PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	4.788	849053.31	128070.42 BV	2.0000e6	3.6800	2.7107		0.4245	2.7107
2	7.694	926829.50	121956.88 VV	4550.1880	3.6800	2.7107	Benzene	203.6904	2.7107
3	7.833	438510.81	89041.41 VV	2.0000e6	3.6800	2.7107		0.2193	2.7107
4	8.039	289881.84	55680.61 VV	1.9999e6	3.6800	2.7107		0.1449	2.7107
5	8.233	205795.58	43579.38 VV	2225.3562	3.6800	2.7107	1,4-DIFLUOROBENZENE	92.4776	2.7107
6	8.863	501414.50	92440.83 VV		3.6800	2.7107	TFT	0.0000	2.7107
7	10.603	1251583.25	277553.16 VB	4541,6582	3.6800	2.7107	Toluene	275.5785	2.7107
8	13.026	406712.63	94607.15 BV	4035.1304	3.6800	2.7107	Ethyl_Benzene	100.7929	2.7107
9	13,177	813821.81	189844.14 VV	3756.6973	3.6800	2.7107	m and p Xylene	216.6323	2.7107
10	13.856	817163.81	189035.05 VV	3929.4199	3.6800	2.7107	o-Xylene	207.9604	2.7107
11	14.502	4023.09	695.80 VV	2.0000e6	3.6800	2.7107		0.0020	2.7107
12	14.784	126368.41	30559.46 VV	1259.6680	3.6800	2.7107	4-BROMOFLUOROBENZENE	100.3188	2.7107
13	15.865	4508.92	947.63 VV	2.0000e6	3.6800	2.7107		0.0023	2.7107
14	16.120	721093.38	174040.33 VB	2.0000e6	3.6800	2.7107		0.3606	2.7107
15	20.188	9391.30	375.12 BB	2.0000e6	3.6800	2.7107		0.0047	2.7107
		7366152.50	1.48e6		55.2000	40.6612		1198.6090	40.6612

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	8.233 8.863 14.784	205795.58 501414.50 126368.41	43579.38 VV 92440.83 VV 30559.46 BV		3.680 3.680 3.680	0.3068	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	92.4776 0.0000 100.3188	0.3068
		833578.50	166579.66		11.040	0.9203		192.7964	0.9203

Report Stored in ASCII File: l:\data\tchrom\btex\hp\_o\0\_\_178.TX0



------ Version: 3.2 <16020>

Marta Mame : 3.6 in: : Number: TC ;S;1 Time Study : 07/06/95 16:52 : MODSG;1;PQL

: RR 1000

Channel: A

A/D mV Range: 1024

3.6

Data Acquisition Time: 07/06/95 16:27 artace Serial # :

ime : 0.00 min. : 24.38 min. and Rate : 2.5000 pts/sec

File : l:\data\tchrom\btex\hp\_o\0\_\_179.raw
: Gle : l:\data\tchrom\btex\hp\_o\0\_\_179.rst mint File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins file : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc
file : L:\DATA\TCHROM\BTEX\METHODS\OSG06215.smp = File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.seq

···me : 2 ul 1mount : 1.0000 Area Reject : 100.00

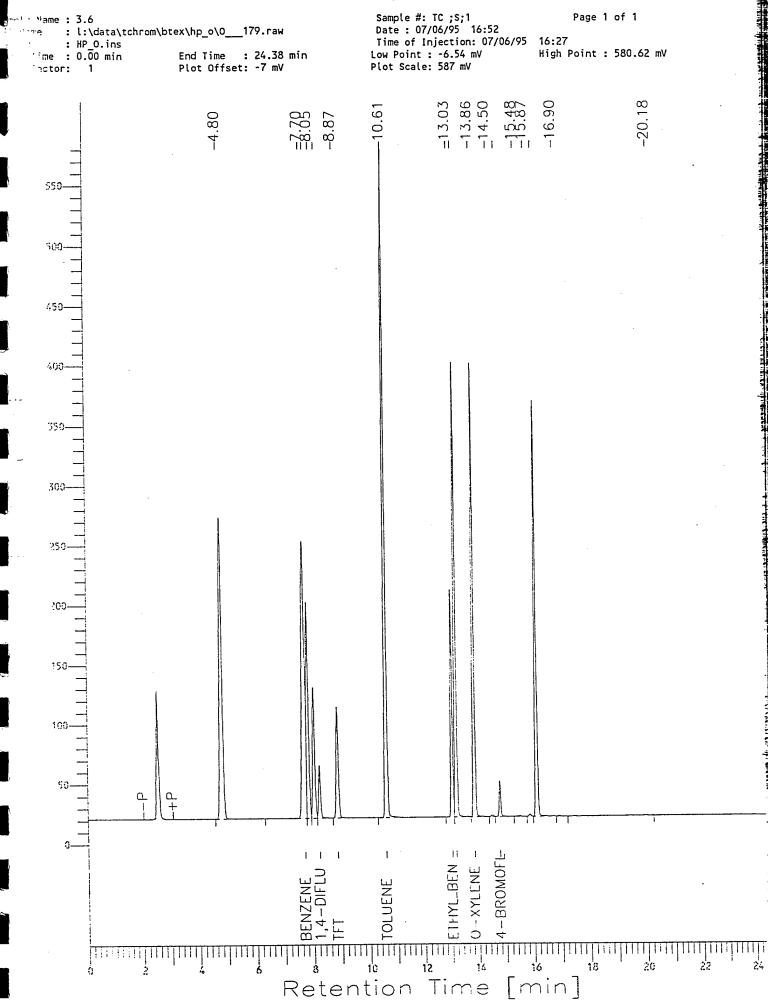
Dilution Factor : 1.00

#### PURFID Area Percent Report

int Time	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM	
2.801 2.704 2.839 2.046 2.239 3.868 3.610 3.030 7.183 2.862 4.503 4.787 7.484 8.865 4.25 4.897 2.182	1674488.25 176048.38 889869.56 566375.69 209036.23 504304.13 2516888.00 819009.56 1638365.13 1638789.75 7278.27 119987.02 5880.67 8734.90 1435495.38 3635.50 7158.08	252969.11 BV 232372.22 VV 180856.98 VV 109479.11 VV 43775.05 VV 92655.27 VV 562311.94 VB 191770.33 BV 382524.69 VV 380751.06 VV 1419.72 VV 29611.17 VV 736.18 VV 1901.61 VV 348811.56 VV 696.46 VB 307.71 BB	1.9999e6 4576.4111 2.0000e6 2.0000e6 2238.1807 4567.8311 4058.3848 3778.3467 3952.0652 2.0000e6 1266.9274 2.0000e6 2.0000e6 2.0000e6 2.0000e6	3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800 3.6800	5.0805 5.0805 5.0805 5.0805 5.0805 5.0805 5.0805 5.0805 5.0805 5.0805 5.0805 5.0805 5.0805 5.0805 5.0805	Benzene  1,4-DIFLUOROBENZENE TFT Toluene Ethyl_Benzene m and p Xylene o-Xylene  4-BROMOFLUOROBENZENE	0.8372 384.6701 0.4449 0.2832 93.3956 0.0000 551.0029 201.8068 433.6196 414.6667 0.0036 94.7071 0.0029 0.0044 0.7178 0.0018 0.0036	5.0805 5.0805 5.0805 5.0805 5.0805 5.0805 5.0805	_
	13805703.00	2.81e6		62.5600	86.3685		2176.1682	86.3685	

### "mont For : SURROGATES

r Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
0.239 0.368 0.787	209036.23 504304.13 119987.02	92655.27 VV	2238.1807 1266.9274	3.6800 3.6800 3.6800	0.3067	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	93.3956 0.0000 94.7071	
	833327.38	166041.48		11.0400	0.9200		188.1027	0.9200



\_\_\_\_\_\_

Software Version: 3.2 <16C20>

Sample Name : 7.2 Sample Number: TC;S;1 Time Study : 07/07/95 08:56 : MODSG;1;PQL

: RR Operator

Instrument : HP\_O

Channel: A

A/D mV Range: 1024

1.Z = 2.806 2565.8607

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : Data Acquisition Time: 07/06/95 17:14

: 0.00 Delay Time min. End Time : 24.38 min. Sampling Rate : 2.5000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_o\0\_\_180.raw Result File : l:\data\tchrom\btex\hp\_o\0\_\_180.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\HP\_O.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\BTEXO2.prc Sample File : L:\DATA\TCHROM\BTEX\METHODS\OSG06215.smp Sequence File : L:\data\tchrom\btex\methods\btexo2.seq

: 2 ul Inj. Volume Sample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

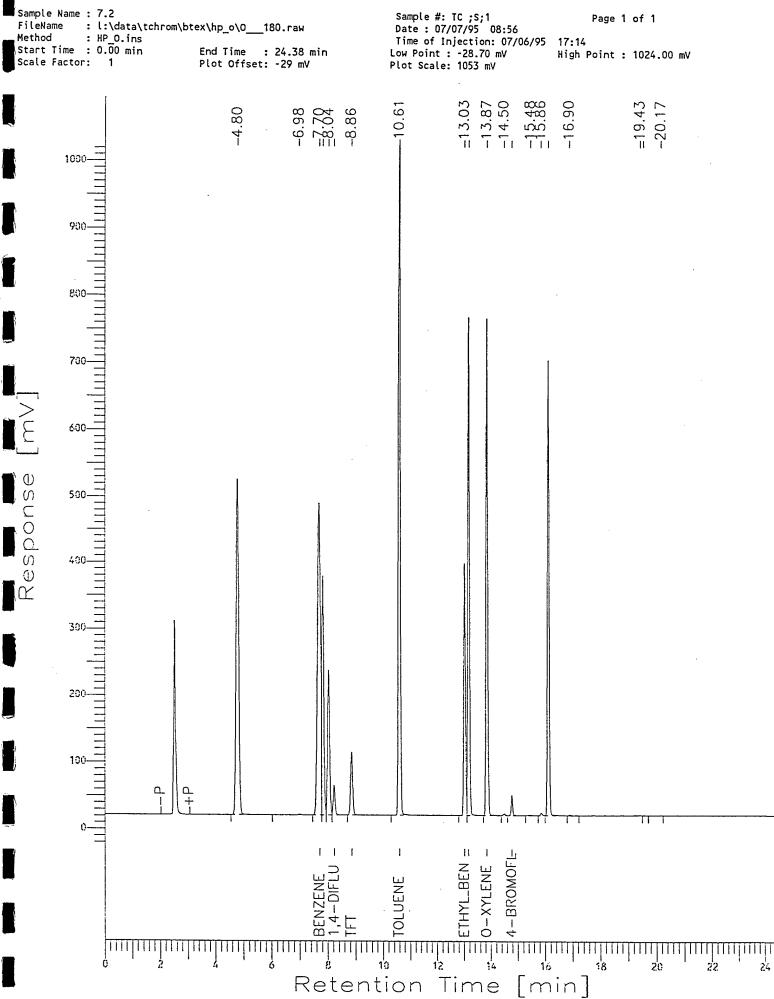
#### PURFID Area Percent Report

Peak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	4.795	3347084.50	506333.13 BV	2.0000e6	3.6800	9.7554		1.6735	9.7554
ż	6.983	17547.09	1655.41 VV	2.0000e6	3.6800	9.7554		0.0088	9.7554
3	7.699	3545139.50	469780.94 VV	4663.2940	3.6800	9.7554	Benzene	760.2222	9.7554
4	7.833	1775693.63	358920.75 VV	2.0000e6	3.6800	9.7554		0.8879	9.7554
5	8.038	1125325.38	217994.34 VV	2.0000e6	3.6800	9.7554		0.5627	9.7554
6	8.232	214783.58	44755.87 VV	2280.6726	3.6800	9.7554	1,4-DIFLUOROBENZENE	94.1755	
7	8.861	513878.34	94197.35 VV		3.6800	9.7554	TFT	0.0000	9.7554
8	10.610	4858547.00	1.00e6 VB	4654.5513	3.6800	9.7554	Toluene	1043.8272	9.7554
9	13.031	1631795.63	380066.38 BV	4135.4326	3.6800	9.7554	Ethyl_Benzene	394.5888	9.7554
10	13.187	3217729.75	748458.13 VV	3850.0784	3.6800	9.7554	m and p Xylene	835.7570	
11	13.867	3244720.50	746262.25 VV	4027.0950	3.6800	9.7554	o-Xylene	805.7224	
12	14.501	13335.62	2666.17 VV	2.0000e6	3.6800	9.7554		0.0067	9.7554
13	14.786	121857.84	30336.75 VV	1290.9801	3.6800	9.7554	4-BROMOFLUOROBENZENE	94.3917	9.7554
14	15.480	7697.78	1014.84 VV	2.0000e6	3.6800	9.7554		0.0039	9.7554
15	15.863	18848.74	3873.74 VV	2.0000e6	3.6800	9.7554		0.0094	9.7554
16	16.132	2845701.50	686116.94 VV	2.0000e6	3.6800	9.7554		1.4229	9.7554
17	16.898	6026.43	1232.66 VB	2.0000e6	3,6800	9.7554		0.0030	9.7554
118	19.429	680.05	505.71 BB	1.9999e6	3.6800	9.7554		0.0003	9.7554
19	19.429	1539.73	443.31 BB	2.0000e6	3.6800	9.7554		0.0008	9.7554
20	20.169	1193.13	521.47 BB	2.0000e6	3.6800	9.7554		0.0006	9.7554
		26509126.00	5.29e6		73.6000	195.1071		4033.2649	195.1071

Group Report For : SURROGATES

Peak Ret Time # [min]	Area [uV-sec]	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 8.232 3 8.861 8 14.786	214783.58 513878.34 121857.84	44755.87 VV 2280.672 94197.35 VV 30336.75 VV 1290.980	3.6800	0.3130	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	94.1755 0.0000 94.3917	0.3130
	850519.75	169289.97	11.0400	0.9390		188.5673	0.9390

Report Stored in ASCII File: l:\data\tchrom\btex\hp\_o\0\_\_180.TX0



Software Version: 3.2 <16C20>

Sample Name : 100 PPM

Sample Number: Operator : SEG Time

: 09/25/95 17:39 : DROW

Study

Instrument : HP\_T AutoSampler : HP 7673A

Rack/Vial

: 0/0

Channel: A A/D mV Range : 1000

Interface Serial #: 4118271220 Data Acquisition Time: 09/25/95 17:11

Delay Time : 0.50 min. : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_217.raw Result File : l:\data\tchrom\pest\hp\_t\T\_\_217.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

15 0.50404 15 6.006

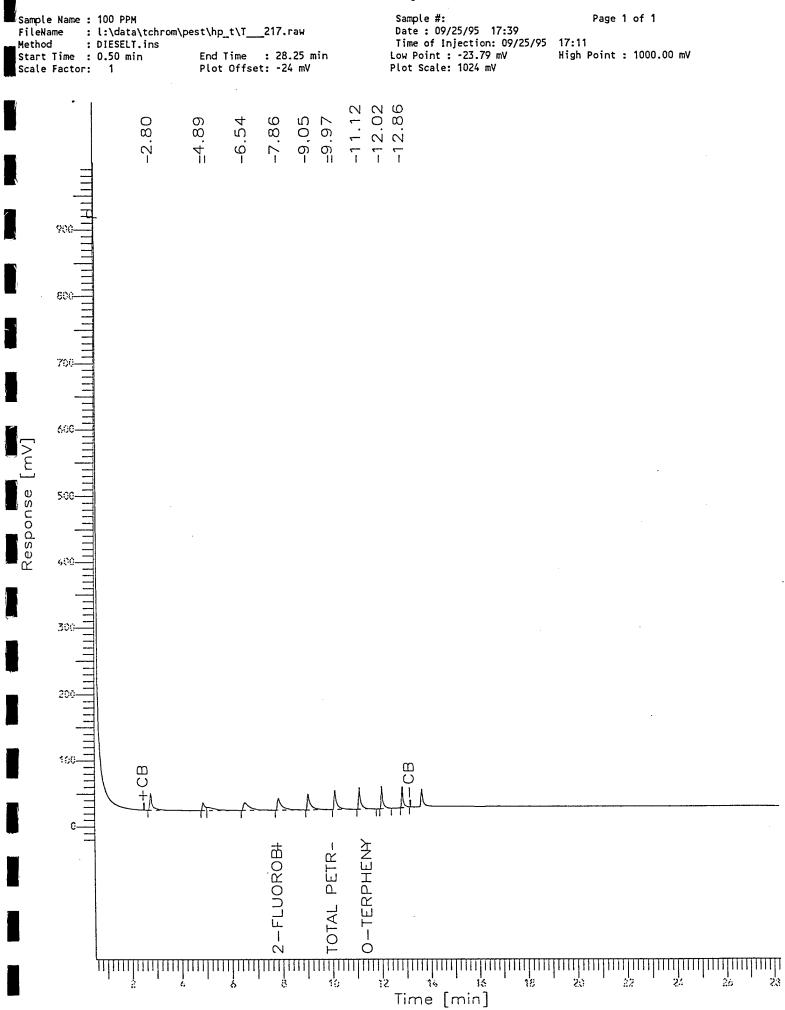
## Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height ( [uV]	•	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1	2.799	201991.50	25577.33	88 5.0000e5	0.5066	93.5514		0.4040	
2	4.893	88480.97	12705.11					0.1770	
3	5.094	129840.88	5277.28	VV 4.9999e5				0.2597	
4	6.544	218031.75	11940.67	vV 5.0000e5	0.5066	93.5514		0.4361	
5	7.865	221492.50	18088.40	VB 1778.5000	0.5066	93.5514	2-FLUOROBIPHENYL	124.5389	
6	9.052	222631.33	24184.46	3E 4.9999e5	0.5066	93.5514		0.4453	
7	9.973	1507.00	195.18	V 1778.5000	0.5066	93.5514	Total Petroleum Hydr	0.8473	
8	10.131	219373.63	29128.25 \	/B 5.0000e5	0.5066		•	0.4388	
9	11.116	208937.00	32852.39	3B 1883.5000	0.5066	93.5514	o-Terphenyl	110.9302	
10	12.021	176548.00	34043.29	3B 5.0000e5	0.5066		• •	0.3531	
11	12.859	157853.00	32577.18	3B 4.9999e5	0.5066	93.5514		0.3157	
		1846687.63	226569.53		5.5725	1029.0648		230 1460	

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	7.865 11.116	221492.50 208937.00	18088.40 BB 32852.39 BB		0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	124.5389 110.9302	
		430429.50	50940.79		1.0132	43.6103		235.4691	

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_217.TXO



Study

Software Version: 3.2 <16C20>

Sample Name : 375 PPM

: 09/25/95 18:14 Time : DROW

Sample Number:

Operator

: SEG

Channel: A

A/D mV Range : 1000

0. 1/2/2) ye

Instrument : HP\_T AutoSampler : HP 7673A Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 09/25/95 17:46

Delay Time : 0.50 min. : 28.25 min. End Time Sampling Rate: 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_218.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_218.rst
Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

: 1 ul Inj. Volume Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

### Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1	2.794	825427.63	145657.25	BE	4.9999e5	0.5066	384.8160		1.6509	
	3.646	26218.00	643.17		.5.0000e5	0.5066	384.8160		0.0524	
2 3	4.620	2912.50	518.40		5.0000e5	0.5066	384.8160		0.0058	
4	4.885	689071.00			5.0000e5	0.5066	384.8160		1.3781	
5	5.067	174721.00	6496.06		5.0000e5	0.5066	384.8160		0.3494	
6	6.120	4850.39	714.27		4.9999e5	0.5066	384.8160		0.0097	
7	6.263	5799.66	930.27		5.0000e5	0.5066	384.8160		0.0116	
8	6.479	880477.38			5.0000e5	0.5066	384.8160		1.7610	
9	7.643	4335.05	785.26		5.0000e5	0.5066			0.0087	
10	7.832	895111.69			1778.5000	0.5066		2-FLUOROBIPHENYL	503.2959	•
11	8.861	2755.00	299.37		5.0000e5	0.5066			0.0055	
12	9.030	898252.00			5.0000e5	0.5066			1.7965	
13	9.963	4067.88	1248.52		1778.5000	0.5066		Total Petroleum Hydr	2.2873	
14	10.114	876069.63			5.0000e5	0.5066		•	1.7521	
15	10.787	2667.00			5.0000e5	0.5066			0.0053	
16	10.787	1534.41	370.90		5.0000e5	0.5066			0.0031	
17	11.102	840893.50			1883.5000	0.5066		o-Terphenyl	446.4526	
		1515.61	389.69		5.0000e5	0.5066		- · · · · · · · · · · · · · · · · · · ·	0.0030	
18	11.882		212012.06		5.0000e5	0.5066			1.5386	
19	12.012				5.0000e5	0.5066			0.0041	
20	12.732	2045.02				0.5066			1.3764	
21	12.851	688191.00	204959.41	RR	5.0000e5	0.5000	, 504.0100			
		7596201.50	1.61e6	5		10.6384	8081.1348		963.7481	

#### Group Report For : SURROGATES

	Ret Time [min]	Area [uV-sec]	Height [uV]	BL Area/ Amount		DIESEL AMT.	Component Name	Raw Amount	
1 3	7.832 11.102			BE 1778.50 VB 1883.50			2-FLUOROBIPHENYL o-Terphenyl	503.2959 446.4526	
		1736005.25	381258.38		1.0132	175.8886		949.7485	

END

Chromatogram

ample Name: 375 PPM

FileName : l:\data\tchrom\pest\hp\_t\T\_\_218.raw

: DIESELT.ins

tart Time : 0.50 min cale Factor: 1

End Time : 28.25 min

Plot Offset: -24 mV

Sample #:

ole #:

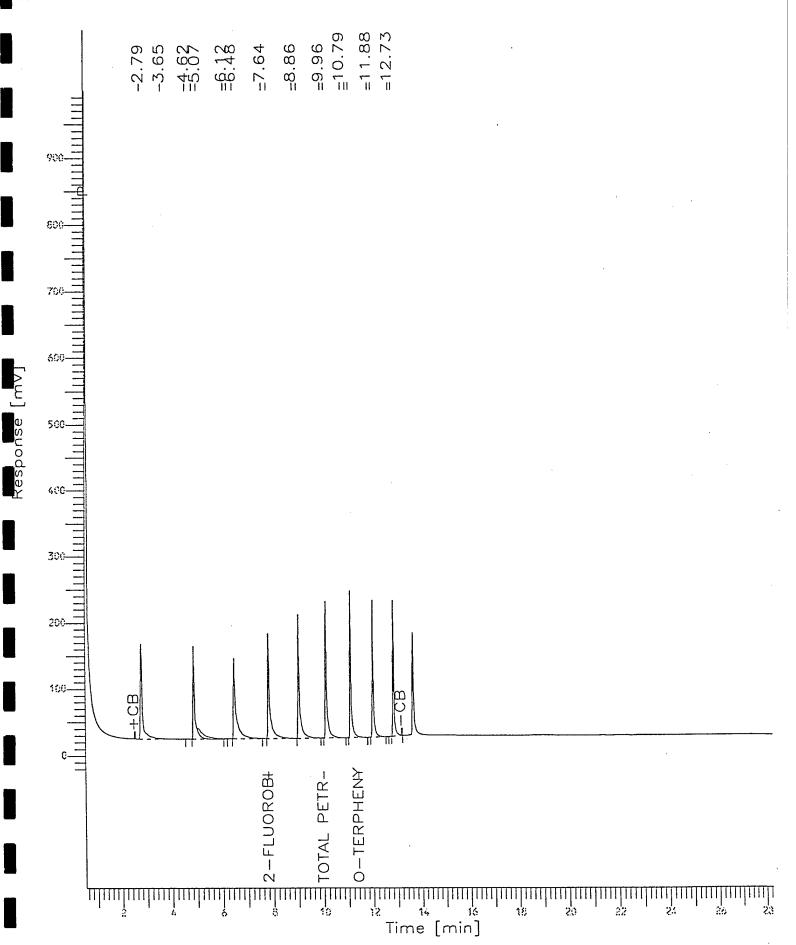
Date: 09/25/95 18:14

Time of Injection: 09/25/95 17:46 Low Point: -23.47 mV High I

High Point : 1000.00 mV

Page 1 of 1

Plot Scale: 1024 mV



Software Version: 3.2 <16C20>

: 09/25/95 18:49 Time Sample Name : 500 PPM : DROW Study

Sample Number:

Operator : SEG

> Channel: A A/D mV Range: 1000

Instrument : HP\_T AutoSampler : HP\_7673A : 0/0 Rack/Vial

Interface Serial #: 4118271220 Data Acquisition Time: 09/25/95 18:21

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_219.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_219.rst
Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

: 1 ul Inj. Volume Sample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

#### Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
#  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	[min] 2.794 3.644 4.466 4.621 4.884 5.065 6.116 6.262 6.475 7.641 7.830 8.861 9.029 9.963 10.113 10.788 10.996 11.101	[uV-sec]  1126503.88     30873.00     2352.50     4266.59     975437.75     202240.00     6701.39     7469.28     1187431.50     5108.00     1188302.63     2706.00     1161009.50     5259.31     1091060.50     2313.61     3877.84     953980.13	[uV] 207492.02 848.00 356.74 757.08 219509.44 8095.34 906.60 1338.31 195921.88 1048.97 234284.78 347.44 262200.28 1624.35 270987.56 449.97 1002.52 257778.72	BE EV VV VV VV VV VV VV VV VV VV VV VV VV	Amount  5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 1778.5000 4.9999e5 4.9999e5 1778.5000 5.0000e5 17999e5 17999e5 1883.5000	RF VALUE  0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066	PPM  478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424 478.0424	Name 2-FLUOROBIPHENYL Total Petroleum Hydr		·
19 20	11.893 12.012	3214.30 781231.63	767.62 215061.88		5.0000e5 5.0000e5	0.5066			1.5625	
21	12.733	2385.00	747.58	3 BB	5.0000e5	0.5066	478.0424		0.0048 1.3855	
<b>2</b> 2	12.851	692749.50  9436474.00	205209.59 2.08e6		5.0000e5	0.5066  11.1450	478.0424 10516.9316		1192.1773	

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Keight [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.830 11.101				1778.5000 1883.5000		0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	668.1488 506.4933	
		2142282 75	492063.50				1.0132	217.0518		1174.6421	

END 

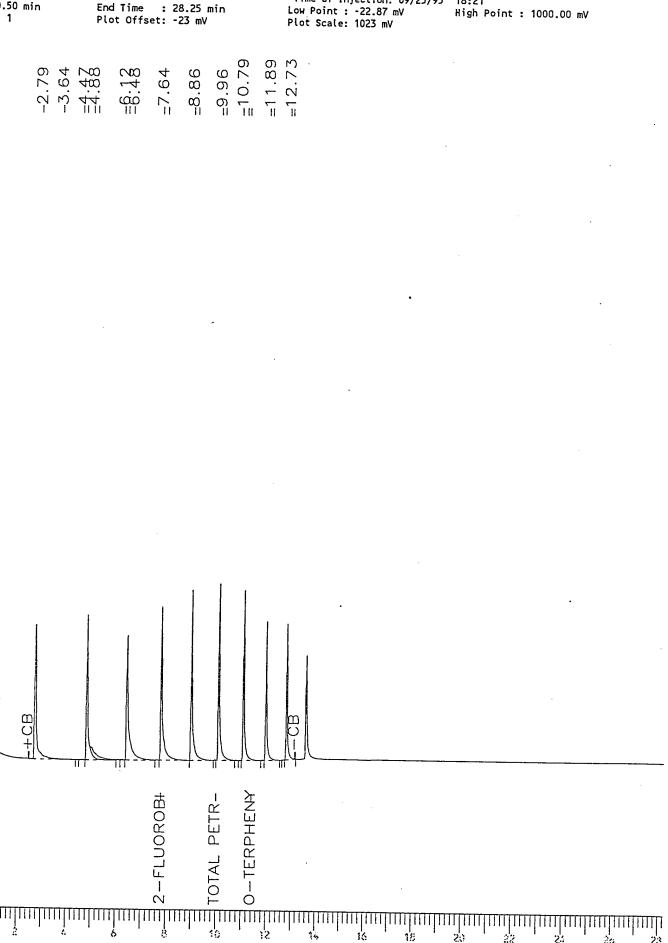
#### Chromatogram

Sample Name : 500 PPM : l:\data\tchrom\pest\hp\_t\T\_ Method : DIESELT.ins Start Time : 0.50 min Scale Factor: -3.64 <u>=</u>4.88

Sample #: Date: 09/25/95 18:49

Time of Injection: 09/25/95 18:21

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18

Time [min]

Software Version: 3.2 <16C20>

: 09/25/95 19:24 Sample Name : 750 PPM Time

Sample Number:

: SEG

: DROW Study

Operator

Instrument : HP\_T AutoSampler : HP 7673A Channel: A

A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 09/25/95 18:56

Delay Time : 0.50 min. : 28.25 min. End Time Sampling Rate: 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_220.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_220.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

#### Area/Concentration Report

Peak#	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT.	Component Name	Raw Amount
1	2.792	1759545.75	351079.66	ВЕ	5.0000e5		0.5066	784.9421		3.5191
2	3.637	36214.00	1054.02		4.9999e5		0.5066	784.9421		0.0724
3	4.470	3699.25	509.85		5.0000e5		0.5066	784.9421		0.0074
4	4.618	6707.00	1253.12	VB	5.0000e5		0.5066	784.9421		0.0134
5	4.883	1585585.75	407851.47	BE	5.0000e5		0.5066	784.9421		3.1712
6	5.059	234746.00	10029.25		5.0000e5		0.5066			0.4695
7	6.115	8776.25	1285.30	٧٧	4.9999e5		0.5066			0.0176
8	6.257	10807.00	2250.95	٧V	5.0000e5		0.5066	784.9421		0.0216
9	6,471	1818237.75	400733.66	VE	5.0000e5		0.5066			3.6365
10	7.496	12693.00	806.91		5.0000e5		0.5066			0.0254
11	7.636	6115.25	1549.36	٧V	5.0000e5		0.5066			0.0122
12	7.824	1839850.00	445499.59	٧V	1778.5000		0.5066		2-FLUOROBIPHENYL	1034.4954
13	8.856	2032.75	657.31	W	5.0000e5		0.5066			0.0041
14	9.024	1816230.25	484538.69	VV	5.0000e5		0.5066			3.6325
15	9.769	3530.00	548.33		5.0000e5		0.5066			0.0071
16	9.960	11405.67	3016.92	ΒV	1778.5000		0.5066		Total Petroleum Hydr	6.4131
17	10.109	1758017.63	495921.00	VV	5.0000e5		0.5066			3.5160
18	10.791	2503.27			5.0000e5		0.5066			0.0050
19	10.983	13244.70	2793.49	ΒV	5.0000e5		0.5066			0.0265
20	11.099	1637878.25	514132.91	VB	1883.5000		0.5066		o-Terphenyl	869.5929
21	11.886	10109.20	2236.90	ΒV	5.0000e5		0.5066			0.0202
22	12.008	1517734.75	477946.56	VB	5.0000e5		0.5066			3.0355
23	12.730	7460.52	2226.07	BB	5.0000e5		0.5066			0.0149
24	12.848	1391497.50	469206.56	ВВ	5.0000e5		0.5066	784.9421		2.7830
****		15494622.00	4.07e6				12.1582	18838.6094		1934.5123

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.824 11.099		445499.59 BV 514132.91 VB				2-FLUOROBIPHENYL o-Terphenyl	1034.4954 869.5929	
		3477728.25	959632.50		1.0132	352.3565		1904.0883	

END  ample Name: 750 PPM

: l:\data\tchrom\pest\hp\_t\T\_\_220.raw

Method : DIESELT.ins

Start Time : 0.50 min

End Time : 28.25 min

Plot Offset: -22 mV

Sample #:

Date: 09/25/95 19:24

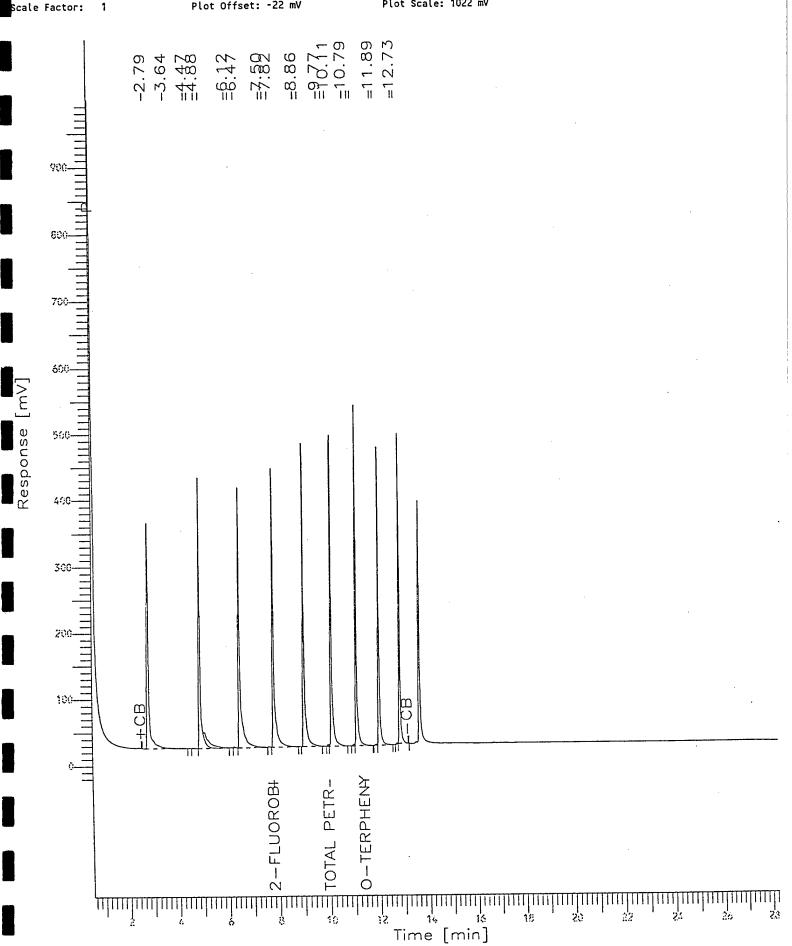
Time of Injection: 09/25/95 18:56

Low Point : -21.98 mV

High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1022 mV



Software Version: 3.2 <16C20>

Sample Name : 1000 PPM

: 09/25/95 19:59 : DROW

Sample Number: Operator

: SEG

Study

Instrument : HP\_T AutoSampler : HP 7673A

box 100 of of low. A/D mV Range: 1000 Channel: A

Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 09/25/95 19:31

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_221.raw Result File : l:\data\tchrom\pest\hp\_t\T\_\_\_221.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sample File Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject

: 100.00

Dilution Factor : 1.00

#### Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1	2.792	2352879.50	489679 66	RF	5.0000e5		0.5066	1075.2926		4.7058	
2	3.633	41880.00	1230.46		5.0000e5		0.5066	1075.2926		0.0838	
3	4.468	5032.00			5.0000e5		0.5066	1075.2926		0.0101	
4	4.616	8665.56	1786.54		5.0000e5		0.5066	1075.2926		0.0173	
5	4.882	2166557.50			5.0000e5		0.5066	1075.2926		4.3331	
6	5.058	269528.00			5.0000e5		0.5066	1075.2926		0.5391	
7	6.116	15670.50	1673.55	VV	4.9999e5		0.5066	1075.2926		0.0313	
8	6.255	14640.59	3133.67		5.0000e5		0.5066	1075.2926		0.0293	
9	6.470	2425601.25	601746.50	VE	5.0000e5		0.5066	1075.2926		4.8512	
10	7.494	14457.00	965.08	E۷	5.0000e5		0.5066	1075.2926		0.0289	
11	7.635	7817.64	2081.69	VV	4.9999e5		0.5066	1075.2926		0.0156	
12	7.822	2407556.00	641235.56	VV	1778.5000		0.5066	1075.2926	2-FLUOROBIPHENYL	1353.7003	
13	8.855	2638.48	864.63	W	5.0000e5		0.5066	1075.2926		0.0053	•
14	9.023	2327117.00	670534.44	VV	5.0000e5		0.5066	1075.2926		4.6542	
15	9.782	3960.06	585.05	٧٧	5.0000e5		0.5066			0.0079	
16	9.958	11924.89	4066.80	VV	1778.5000		0.5066	1075.2926	Total Petroleum Hydr		
17	10.108	2255542.00	687222.56	VV	5.0000e5		0.5066			4.5111	
18	10.614	6251.63	1186.46	VV	5.0000e5		0.5066			0.0125	
19	10.790	2836.88	584.74	VB	5.0000e5		0.5066			0.0057	
20	10.985	15084.28	3152.04	BV	5.0000e5		0.5066	1075.2926		0.0302	
21	11.098	2251882.75	747760.81	VB	1883.5001		0.5066		o-Terphenyl	1195.5841	
22	11.890	11942.59			5.0000e5		0.5066			0.0239	
23	12.007	2300091.50	775153.13	VB	5.0000e5		0.5066			4.6002	
24	12.733	8995.53	2897.22	BB	5.0000e5		0.5066			0.0180	
25	12.850	2297537.00	833230.13	ВВ	4.9999e5		0.5066			4.5951	
		21226092.00	6.08e6	,			12.6648	26882.3203		2589.0989	

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height B [uV]	L Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1	7.822 11.098			V 1778.5000 B 1883.5001	0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	1353.7003 1195.5841	
		4659439.00	1.38e6		1.0132	472.0851		2549.2844	

END

\_\_\_\_\_\_

Chromatogram

mple Name: 1000 PPM

FileName : l:\data\tchrom\pest\hp\_t\T\_\_\_221.raw

Method tart Time : 0.50 min

: DIESELT.ins

End Time : 28.25 min Plot Offset: -22 mV

Sample #:

Page 1 of 1

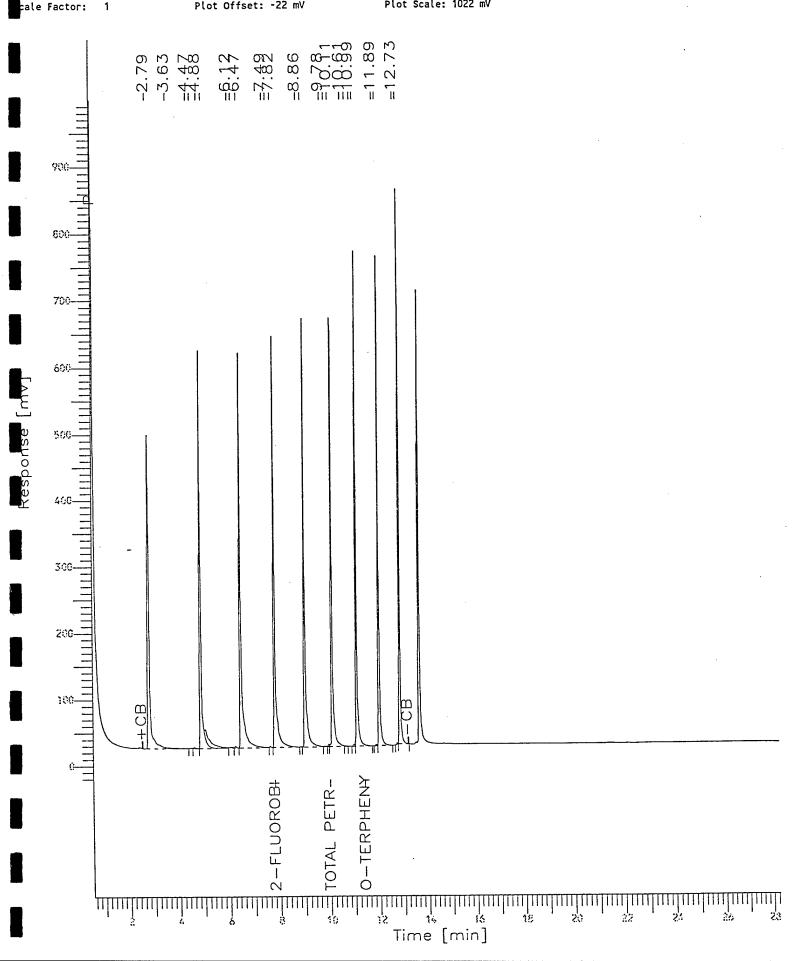
Date: 09/25/95 19:59

Time of Injection: 09/25/95 19:31

Low Point : -21.54 mV

High Point : 1000.00 mV

Plot Scale: 1022 mV



Software Version: 3.2 <16C20>

Sample Name : 750\_PPM

Sample Number: TC ;W Operator : SEG

: 09/28/95 16:00

: DROW

Instrument : HP\_T AutoSampler : HP\_7673A

A/D mV Range: 1000 Channel: A

: 0/0 Rack/Vial

Interface Serial #: 4118271220 Data Acquisition Time: 09/28/95 15:32

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec Ant = 819.16 Rec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_306.raw Result File : l:\data\tchrom\pest\hp\_t\T\_\_306.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sample File Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

: 100.00 Area Reject Dilution Factor : 1.00

RF FOR DRO = 0.50404
AS Seen on Curve

#### Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1	2.805	1857716.50	348450.88	BE	5.0000e5		0.5066	823.3135		3.7154	
2	3.650	39514.00	1118.08	EΥ	4.9999e5		0.5066	823.3135		0.0790	
3	4.488	3866.94	531.32	W	5.0000e5		0.5066	823.3135		0.0077	
4	4.632	6722.59	1291.80	VB	5.0000e5		0.5066	823.3135		0.0135	
5	4.894	1967305.88	385311.69	BE	5.0000e5		0.5066	823.3135		3.9346	
6	6.131	25785.00	1640.80	EΥ	5.0000e5		0.5066	823.3135		0.0516	
7	6.270	15516.72	2624.29	W	5.0000e5		0.5066	823.3135		0.0310	
8	6.484	1991516.75	384615.03	VE	5.0000e5		0.5066	823.3135		3.9830	
9	7.502	22747.00	1342.48	ΕV	5.0000e5		0.5066	823.3135		0.0455	
10	7.651	11048.84	2036.04	W	5.0000e5		0.5066	823.3135		0.0221	
11	7.837	1963399.75	424863.19	VE	1778.5000		0.5066	823.3135	2-FLUOROBIPHENYL	1103.9639	
12	8.869	11247.00	1114.11	E۷	5.0000e5		0.5066	823.3135		0.0225	
13	9.037	1864872.38	452514.06	٧E	5.0000e5		0.5066	823.3135		3.7297	
14	9.760	23213.00	2206.30	E۷	5.0000e5		0.5066	823.3135		0.0464	
15	9.972	12809.05	3391.34	W	1778.5000		0.5066	823.3135	Total Petroleum Hydr	7.2022	
16	10.122	1793245.25		٧٧	5.0000e5		0.5066	823.3135		3.5865	•
17	10.787	6903.53			5.0000e5		0.5066	823.3135		0.0138	
18	11.016	23410.14	5634.78	W	4.9999e5		0.5066	823.3135		0.0468	
19	11.113	1648839.00		VB	1883.5000		0.5066	823.3135	o-Terphenyl	875.4123	
20	11.921	15363.41			5.0000e5		0.5066	823.3135		0.0307	
21	12.020	1536940.50		VB	5.0000e5		0.5066	823.3135		3.0739	
22	12.756	6254.92			5.0000e5		0.5066	823.3135		0.0125	
23	12.861	1403831.00		BB	5.0000e5		0.5066	823.3135		2.8077	
										2044 0722	

16252068.00 3.85e6 11.6516 18936.2148

2011.8322

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height B [uV]	L Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1	7.837 11.113			1778.5000 1883.5000			2-FLUOROBIPHENYL o-Terphenyl	1103.9639 875.4123	
		3612238.75	890823.06		1.0132	365.9848		1979.3762	

END 

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_306.TX0

#### Chromatogram

Sample Name: 750\_PPM

: l:\data\tchrom\pest\hp\_t\T\_\_306.raw FileName

: DIESELT.ins

Start Time : 0.50 min Scale Factor:

End Time : 28.25 min Plot Offset: -23 mV

Sample #: TC ;W

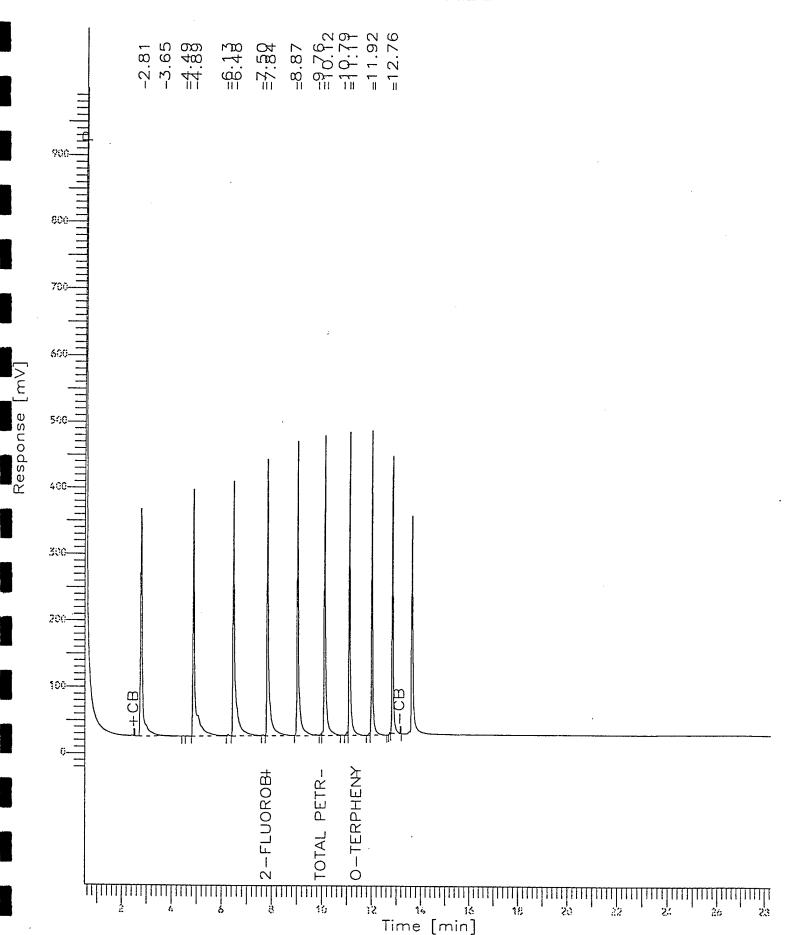
Date: 09/28/95 16:00

Time of Injection: 09/28/95 15:32

Low Point : -22.91 mV Plot Scale: 1023 mV

High Point: 1000.00 mV

Page 1 of 1



Software Version: 3.2 <16C20>

Sample Name : 9509929-01C

Sample Number: SC ;W

Time : 09/28/95 16:35

Study : DR

Operator : SEG

SAMPLE

A/D mV Range: 1000

Instrument : HP\_T AutoSampler : HP 7673A Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 09/28/95 16:07

Delay Time : 0.50 min.
End Time : 28.25 min.
Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_307.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_307.rst
Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins
Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

#### Area/Concentration Report

	Med Concentration Report											
Peak #	Ret Time (min)	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount			
1	2.830	1288196.13	17/803 61	DV.	5.0000e5		1902.8202	2-FLUOROBIPHENYL	2.5764			
	2.999	1104492.50			4.9999e5	0.5066	1902.8202		2.2090			
2					5.0000e5	0.5066	1902.8202		1 4248			
3 4	3.203	712420.31			5.0000e5	0.5066	1902.8202		5 4018			
	3.312	2700883.25			5.0000e5	0.5066	1902.8202		2 2063			
5	3.485	1103127.50			5.0000e5	0.5066	1902.8202		2 3705			
6	3.590	1189747.63				0.5066	1902.8202		4 8843			
7	3.682	2442149.00			5.0000e5	0.5066	1902.8202		0.6571			
8	3.823		63135.51		5.0000e5		1902.0202		2 70/3			
9	3.960	1352133.13			5.0000e5	0.5066	1902.8202		2.7043 7.2080			
10	4.108	2104464.25			5.0000e5	0.5066	1902.8202		1 1025			
11	4.271		144154.20		5.0000e5	0.5066	1902.8202		0.0102			
12	4.329		144187.83		5.0000e5	0.5066	1902.8202		0.9102			
13	4.460	1235271.75			5.0000e5	0.5066	1902.8202		2.4705			
14	4.569		203204.20		5.0000e5	0.5066	1902.8202		1.8386			
15	4.666	1174856.00			5.0000e5	0.5066	1902.8202		2.3497			
16	4.831		88733.27		5.0000e5	0.5066	1902.8202		0.6023			
17	4.940	1234090.00	301657.38	V۷	5.0000e5	0.5066	1902.8202		2.4682			
18	5.011	928595.00	181439.03	W	5.0000e5	0.5066	1902.8202		1.8572			
19	5.191	325181.06	73845.64	W	5.0000e5	0.5066	1902.8202		0.6504			
20	5.383	1964469.00	365019.28	W	5.0000e5	0.5066	1902.8202		3.9289			
21	5.467	816131.06	181715.83	V۷	5.0000e5	0.5066	1902.8202		1.6323			
22	5.682	908746.38	143995.19	٧V	5.0000e5	0.5066	1902.8202		1.8175			
23	5.816	725036.81	143247.63	V۷	5.0000e5	0.5066	1902.8202		1.4501			
24	5.929		66331.84		5.0000e5	0.5066	1902.8202		0.5283			
25	6.079	1220406.25	208433.98	W	4.9999e5	0.5066	1902.8202		2.4408			
26	6.233	790741.88	113269.36	W	5.0000e5	0.5066	1902.8202		1.5815			
27	6.397	136222.27	48159.05	W	5.0000e5	0.5066	1902.8202		0.2724			
28	6.472	360611.53	76986.62	W	5.0000e5	0.5066	1902.8202		0.7212			
29	6.553	474891.13	74898.73	W	5.0000e5	∕0.5066	1902.8202		0.9498			
30	6.714		34966.15		5.0000e5	0.5066	1902.8202		0.2628			
31	6.829	530582.88	101169.30	٧V	5.0000e5	0.5066	1902.8202		1.0612			
32	6.906		161152.16		4.9999e5	0.5066	1902.8202		1.4430			
33	7.109	1084126.75			5.0000e5	0.5066	1902.8202		2.1683			
34	7.384	166850.13			5.0000e5	0.5066	1902.8202		0.3337			
35	7.484	508933.63			5.0000e5	0.5066	1902.8202		1.0179			
36	7.663		72778.97		5.0000e5	0.5066	1902.8202		1.1641			
37	7.840		118117.86		1778.5000	0.5066	1902.8202	2-FLUOROBIPHENYL	335.3326			
38	8.049	559224.75			5.0000e5	0.5066	1902.8202		1.1185			
39	8.161	133438.13			5.0000e5	0.5066	1902.8202		0.2669			
40	8.361	498069.75			5.0000e5	0.5066	1902.8202		0.9961			
41	8.511	365116.75			5.0000e5	0.5066			0.7302			
42	8.678	258596.50			4.9999e5	0.5066			0.5172			
43	8.804	177207.31			5.0000e5	0.5066			0.3544			
44	8.991	313887.75			5.0000e5	0.5066			0.6278			
45	9.166	202645.34			5.0000e5	0.5066			0.4053			
46	9.283	158735.03			4.9999e5	0.5066			0.3175			
47	9.426	111683.88			5.0000e5	0.5066			0.2234			
48	9.420	132961.13			5.0000e5		1902.8202		0.2659			
49	9.784	101577.19			5.0000e5				0.2032			
47	7.104	לו . וזכוטו	11031.70	* *	2.00002	3.7000	. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					

	50 51 52	9.909 10.085 10.182	157011.94 51525.50 46745.00	18924.54 VV 10199.67 VV 7141.87 VV	5.0000e5 1778.5000 5.0000e5	0.5066 0.5066 0.5066	1902.8202 1902.8202 1902.8202	Total Petroleum Hydr	0.3140 28.9713 0.0935	
	53	10.447	74756.81	8268.38 VV	4.9999e5	0.5066	1902.8202		0.1495	
	54	10.568	216344.34	31766.61 VE	5.0000e5	0.5066	1902.8202		0.4327	
	55	10.911	24993.00	4487.35 EV	5.0000e5	0.5066	1902.8202		0.0500	
	56	11.047		46425.72 VV	5.0000e5	0.5066	1902.8202		0.2827	
	57	11.139	91405.72	11901.59 VV	5.0000e5	0.5066	1902.8202		0.1828	
	58	11.378	54327.81	7049.09 VV	1883.5000	0.5066	1902.8202	o-Terphenyl	28.8441	
	59	11.562	8154.75	1439.07 VV	5.0000e5	0.5066	1902.8202	o-Terphenyl	0.0163	
	60	11.706	9197.44	2021.64 VV	5.0000e5	0.5066	1902.8202		0.0184	
_	61	11.840	24697.94	3217.62 VB	5.0000e5	0.5066	1902.8202		0.0494	
	62	12.203	72410.44	16608.73 BV	5.0000e5	0.5066	1902.8202		0.1448	
	63	12.448	6207.81	1735.96 VV	5.0000e5	0.5066	1902.8202		0.0124	
	64	12.574	77146.75	15113.78 VB	4.9999e5	0.5066	1902.8202		0.1543	
	65	12.862	4172.31	1287.77 BV	5.0000e5	0.5066	1902.8202		0.0083	
	66	12.960	4141.05	974.04 VV	5.0000e5	0.5066	1902.8202		0.0083	
	67 	13.087	2379.63	645.76 VB	4.9999e5	0.5066	1902.8202		0.0048	
		:	37561344.00	7.38e6		33.9415	1.2748e5		466.8661	

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.840 11.378	596388.94 54327.81					0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	335.3326 28.8441	
		650716.75	125166.95				1.0132	65.9293	****************	364.1766	

END

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_307.TX0

#### Chromatogram

Sample Name: 9509929-01C

: l:\data\tchrom\pest\hp\_t\T\_\_307.raw FileName

: DIESELT.ins Method

Start Time : 0.50 min Scale Factor:

End Time : 28.25 min Plot Offset: -17 mV

Sample #: SC ;W

Date: 09/28/95 16:35

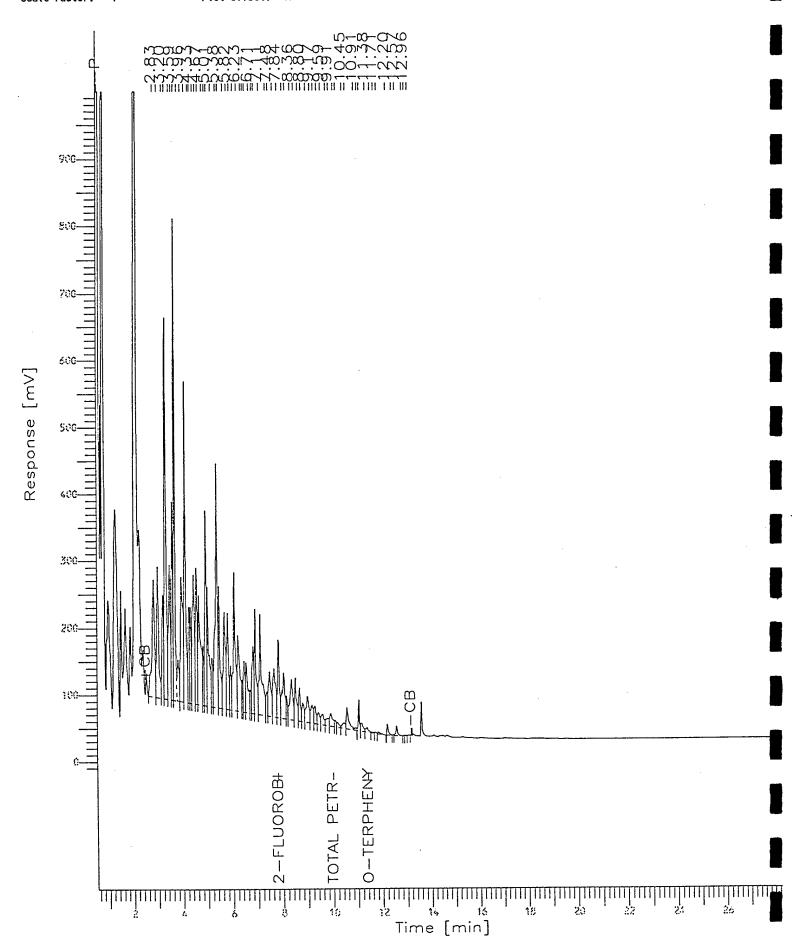
16:07

Time of Injection: 09/28/95 Low Point : -17.12 mV

High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1017 mV



Software Version: 3.2 <16C20>

Sample Name : 950926SFB1

Sample Number: B ;W Operator : SEG

Time : 09/27/95 18:57

: MODWD Study

Instrument : HP\_T AutoSampler : HP\_7673A

Channel : B A/D mV Range: 1000

: 100.00

Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 09/27/95 18:28

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\TT\_590.raw
Result File : l:\data\tchrom\pest\hp\_t\TT\_590.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELTT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

0.00 mole

Inj. Volume : 1 ul Area Reject Sample Amount : 1.0000

Dilution Factor : 1.00

#### Area/Concentration Report

Peak	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1	2.652	16621.50	2688.80 BB	5.0000e5	0.5103	22.1352		0.0332	
2	2.885	11963.50	2002.31 BB	5.0000e5	0.5103	22.1352		0.0239	
_ 3	3.107	3336.78	1059.25 BV	5.0000e5	0.5103	22.1352	870%	0.0067	
4	3.264	23847.16	7284.46 VV	4.9999e5	0.5103	22.1352	20/2	0.0477	
5	3.370	47125.13	10753.83 VB	5.0000e5	0.5103	22.1352	871 13	0.0943	
6	3.589	30621.69	8319.65 BV	5.0000e5	0.5103	22.1352	-	0.0612	
7	3.698	17294.84	4931.69 VV	4.9999e5	0.5103	22.1352		0.0346	
8	3.824	14368.69	3556.15 VV	5.0000e5	0.5103	22.1352		0.0287	
9	3.945	5243.84	1277.45 VV	5.0000e5	0.5103	22.1352		0.0105	
10	4.044	2771.50	665.30 VB	5.0000e5	0.5103	22.1352		0.0055	
12	6.082	949.00	314.77 BB	1970.0000	0.5103	22.1352	2-FLUOROBIPHENYL	0.4817	
13	6.423	96340.00	4901.64 BV	5.0000e5	0.5103	22.1352		0.1927	
14	7.295	6264.94	837.62 VB	5.0000e5	0.5103	22.1352		0.0125	
15	7.834	2157.00	231.98 BB	1970.0000	0.5103	22.1352	Total Petroleum Hydr	1.0949	
16	8.455	1304.75	176.42 BV	5.0000e5	0.5103	<b>22.135</b> 2		0.0026	
_ 17	8.590	1297.31	109.11 VB	1969.9999	0.5103	22.1352	o-Terphenyl	0.6585	
18	9.033	628.34	127.23 BV	5.0000e5	0.5103	22.1352		0.0013	
19	9.252	479.66	44.58 VB	5.0000e5	0.5103	22.1352		0.0010	
20	9.566	131364.88	34712.35 BE	4.9999e5	0.5103	22.1352	- 0/	0.2627	
21	9.912	3326.00	452.26 EB	5.0000e5	0.5103	22.1352	ah 19	0.0067	
22	10.432	307.00	61.98 BB	5.0000e5	0.5103	22.1352	10	0.0006	
23	10.560	500.19	88.66 BV	5.0000e5	0.5103	22.1352		0.0010	
24	11.030	1117.81	83.46 VB	5.0000e5	0.5103	22.1352	-	0.0022	
25	11.203	160.00	47.42 BB	5.0000e5	0.5103	22.1352		0.0003	
27	11.926	646.34	192.16 BV	5.0000e5	0.5103	22.1352		0.0013	
28	12.013	3283.66	632.03 VB	5.0000e5	0.5103	22.1352		0.0066	•
29	12.332	1516.50	240.85 BB	5.0000e5	0.5103	22.1352		0.0030	
<b>–</b> 30	12.570	5270.09	1778.48 BV	5.0000e5	0.5103	22.1352		0.0105	
31	12.739	1585.31	440.16 VV	5.0000e5	0.5103	22.1352		0.0032	
32	12.842	459.61	94.56 VB	5.0000e5	0.5103	22.1352		0.0009	
33	13.130	1615.50	482.52 BB	5.0000e5	0.5103	22.1352	Total Petroleum Hydro-Terphenyl	0.0032	
		433768.50	88589.08		15.8193	686.1912		3.0939	

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	6.082 8.590	949.00 1297.31		1970.0000 1969.9999	0.5103 0.5103		2-FLUOROBIPHENYL o-Terphenyl	0.4817 0.6585	
]		2246.31	423.88	• • • • • • • • • • • • • • • • • • • •	1.0206	0.2293		1.1403	,

Report Stored in ASCII File: L:\data\tchrom\pest\hp\_t\TT\_\_590.TX0

#### Chromatogram

Sample Name: 950926SFB1

FileName : i:\data\tchrom\pest\hp\_t\TT\_\_590.raw

: DIESELT.ins Start Time : 0.50 min

Scale Factor: 1

End Time : 28.25 min Plot Offset: -7 mV

Sample #: B ;W

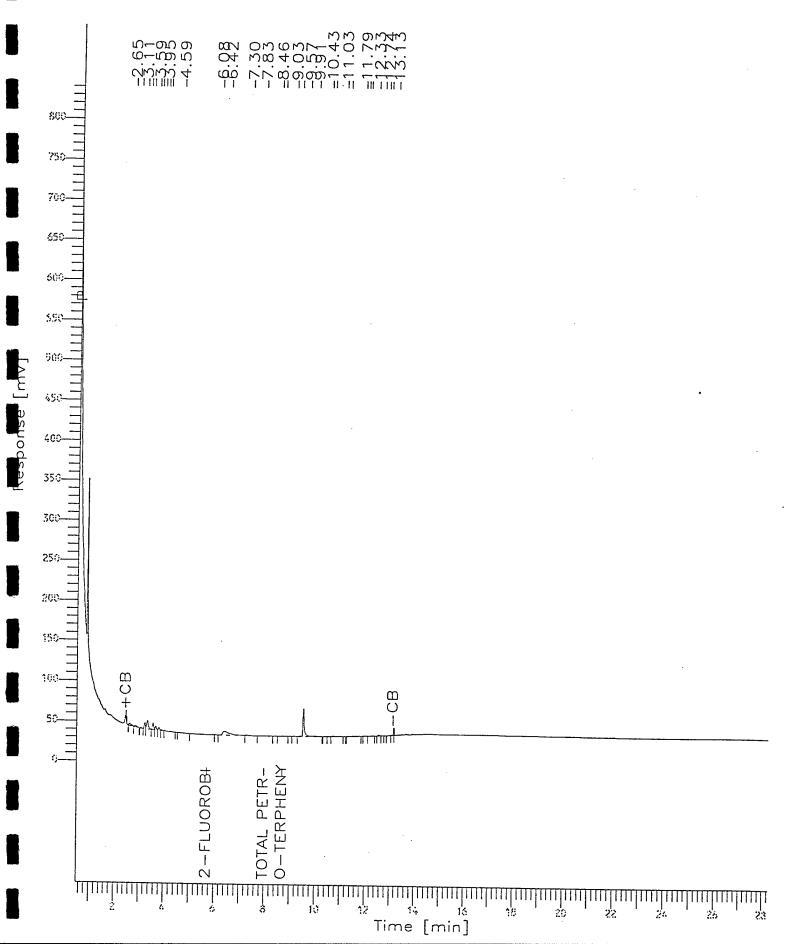
Date: 09/27/95 18:57

Time of Injection: 09/27/95 18:28 Low Point : -6.77 mV

Plot Scale: 848 mV

Page 1 of 1

High Point: 841.30 mV



Software Version: 3.2 <16C20>

Sample Name : 950926SFBS

Time : 09/27/95 19:32 : MODWD Study

Sample Number: KB;W Operator

: SEG

Channel: B

Instrument : HP\_T AutoSampler : HP\_7673A

Rack/Vial : 0/0

A/D mV Range: 1000

net = 5.28 | 5.0 pec

Interface Serial #: 4118271220 Data Acquisition Time: 09/27/95 19:03 Delay Time : 0.50 min. End Time : 28.25 min.

Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\TT\_591.raw
Result File : l:\data\tchrom\pest\hp\_t\TT\_591.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELTT.smp

Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

#### Area/Concentration Report

Peak	Ret Time	Area	Height	BL	Area/	RF	VALUE	DIESEL AMT.	Component	Raw	
#	[min]		[uV]			•••		PPM	Component Name	Amount	
									2-FLUOROBIPHENYL  Total Petroleum Hydr		
1	2.630	15490.97			5.0000e5		0.5103	2640.7661		0.0310	
2	2.764	24486.03			5.0000e5		0.5103	2640.7661		0.0490	
3	2.922	37070.42	11164.96	VV	4.9999e5		0.5103	2640.7661		0.0741	
4	2.992		26169.90		5.0000e5		0.5103	2640.7661		0.1919	
5	3.119	18514.38			5.0000e5		0.5103	2640.7661		0.0370	
6	3.258	10/9/5.66	28344.06	W	5.0000e5		0.5103	2640.7661		0.2160	
7	3.380		16183.35		4.9999e5		0.5103	2640.7661		0.2112	
8	3.589		24442.37		5.0000e5		0.5103	2640.7661		0.2228	
9	3.696		22209.79		5.0000e5		0.5103	2640.7661		0.3336	
10	3.859	86596.38			5.0000e5		0.5103	2640.7661		0.1732	
11	3.940		26424.56		5.0000e5		0.5103	2640.7661		0.2441	
12	4.075	442153.63	84992.73	VV	5.0000e5		0.5103	2640.7661		0.8843	
13	4.238		26391.23		5.0000e5		0.5103	2640.7661		0.4106	
14	4.447		28755.61		5.0000e5		0.5103	2640.7661		0.2986	
15	4.574	289038.34			5.0000e5		0.5103	2640.7661		0.5781	
16	4.662		59248.93		5.0000e5		0.5103	2640.7661		0.7887	
17	4.886		51387.27		4.9999e5		0.5103	2040.7001		0.5684	
18	4.978		169891.69		5.0000e5		0.5103	2040.7001		1.3037	
19	5.097		67101.20		5.0000e5		0.5103	2040.7001		0.7993	
20	5.201		55032.27				0.5103	2040.7001		0.4380	
21	5.306	317071.23	54402.39	VV	5.0000e5		0.5103	2040.7001		0.6393	
22	5.412 5.544		59956.54		5.0000e5		0.5103	2040.7001		0.4268	
23			131937.28		5.0000e5		0.5105	2040.7001	3 51110000101151171	2.4518	
24 25	5.771		307723.81				0.5103	2040.7001	2-FLUOROBIPHENTL	000.8909	
26	5.952 6.130		129535.91		5.0000e5		0.5103	2040.7001		4.2730	
27	6.247		97290.55 106934.69		5.0000e5 5.0000e5		0.5103	2640.7661		1.1007	
28	6.329		135484.39		5.0000e5		0.5103	2640.7661		2 0/70	
29	6.501		385606.72		5.0000e5		0.5103	2640.7661		2.0476	
30	6.585		148143.31		5.0000e5		0.5103	2640.7661		1 //75	
31	6.703		200215.56		5.0000e5		0.5103	2640.7661		2 5/88	
32	6.842		176606.39		4.9999e5		0.5103	2640.7661		1 5261	
33	6.922		204252.30		5.0000e5		0.5103	2640.7661		2 127/	
34	7.033		113650.96		5.0000e5		0.5103	2640.7661		0 0000	
35	7.175		430346.53		5.0000e5		0.5103	2640.7661		3 88/7	
36	7.263		147718.78		5.0000e5		0.5103	2640.7661		1 5125	
37	7.427		161296.44		5.0000e5		0.5103	2640.7661		2 2581	
38	7.575		192919.97		5.0000e5		D 5103	2640.7661		/ 5088	
39	7.811		476701.78		5.0000e5		0.5103	2640.7661		6 3675	
40	8.103	1721006.75					0.5103	2640.7661	Total Petroleum Hydr	873 6075	
41	8.179		179658.80		4.9999e5		0.5103	2640.7661	rotat retroteda nya.	2 3774	
42	8.317		128964.71		5.0000e5		0.5103	2640.7661		0.9703	•
43	8.416		509005.13		5.0000e5		0.5103	2640 7661	o-Terphenyl	5,1023	
44	8.539		167781.70		5.0000e5		0.5103	2640.7661		1,5411	
45	8.700		177270.34				0.5103	2640.7661	a-Terphenyl	734,2081	
46	8.766		174606.75		5.0000e5		0.5103	2640.7661	- respicing (	3,1992	
47	8.979		423459.69				0.5103	2640.7661		5.5417	
48	9.213		154777.06				0.5103	2640.7661		2.2236	
49	9.333		144825.03				0.5103	2640.7661		2,4050	
• •				• •	2.200023					2.4050	

50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69	9.518 9.743 9.844 10.034 10.237 10.403 10.709 10.817 10.881 11.004 11.171 11.280 11.459 11.626 11.897 12.317 12.560 12.723 13.117	713063.88 1159457.00 1495801.25 687332.63 930584.13 944327.63 457371.53 211193.45 296792.75	98857.78 VV 193848.92 VV	5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5	0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103	2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661 2640.7661	5.6867 1.4261 2.3189 2.9916 1.3747 1.8612 1.8887 0.9147 0.4224 0.5936 1.2529 0.4635 0.4742 0.6308 0.3694 0.3499 0.0818 0.0165 0.0146
		51749288.00	8.51e6		35.2107	1.8221e5	0.0069 2363.2722

## Group Report For : SURROGATES

Pe	ak Ret Time # [min]	Area [uV-sec]	Height (uV)	BL	Area/ Amount	RF	VALUE	DIESEL AMT.	Component Name	Raw Amount	
	1 5.771 3 8.700	1301966.88 1446390.00	307723.81 177270.34		1969.9999 1970.0000		0.5103 0.5103		2-FLUOROBIPHENYL o-Terphenyl	660.8969 734.2081	••••••••••
		2748357.00	484994.16				1.0206	280.4973		1395.1050	•••

END

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\TT\_\_591.TXO

#### ${\tt Chromatogram}$

Sample Name: 950926SFBS

FileName : l:\data\tchrom\pest\hp\_t\TT\_\_591.raw

: DIESELT.ins

Start Time : 0.50 min

End Time : 28.25 min Plot Offset: -1 mV

Sample #: KB ;W

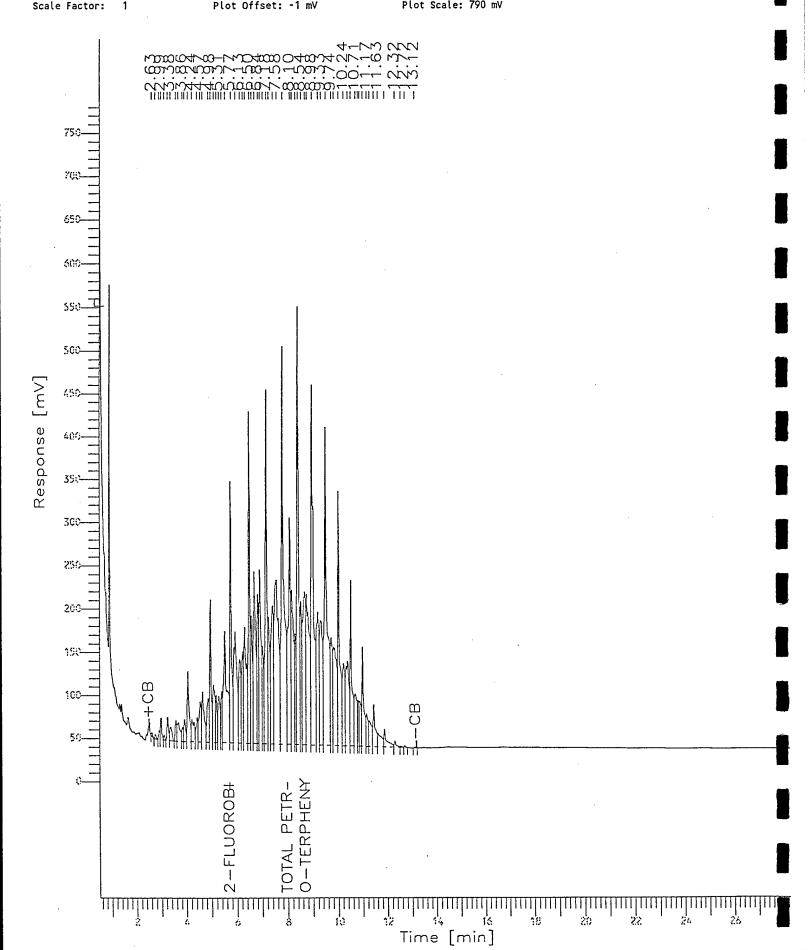
Page 1 of 1

Date: 09/27/95 19:32

Time of Injection: 09/27/95 19:03

Low Point : -0.92 mV Plot Scale: 790 mV

High Point : 789.19 mV



\_\_\_\_\_\_\_

Software Version: 3.2 <16C20>

Sample Name : 950926SFBSD Time : 09/27/95 20:06 : MODWD Study

Sample Number: KBD;W

Operator : SEG

Instrument : HP\_T AutoSampler : HP\_7673A

A/D mV Range: 1000 Channel: B

Act 5.53 | 5.0 pec

Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 09/27/95 19:38

Delay Time : 0.50 min. End Time : 28.25 min.

Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\TT\_\_592.raw
Result File : l:\data\tchrom\pest\hp\_t\TT\_\_592.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELTT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

: 100.00 Inj. Volume Area Reject : 1 ul Sample Amount : 1.0000 Dilution Factor : 1.00

#### Area/Concentration Report

ľ	Area/Concentration Report										
Peak	Ret Time	Area	Height	BL	Area/	RF VALUE	DIESEL AMT.	Component	Raw		
#	[min]	[uV-sec]	[uV]		Amount		PPM	Name	Amount		
1	2.632	17106.50	5119.84	ВВ	5.0000e5	0.5103	2764.9053		0.0342		
2	2.765	26583.69	6106.85	ΒV	4.9999e5	0.5103	2764.9053		0.0532		
_ 3	2.922	40626.75	12031.72	W	5.0000e5	0.5103			0.0813		
4	2.994	107024.00	29350.46	V۷	5.0000e5	0.5103			0.2141		
5	3.120	20667.25	6326.24	W	5.0000e5	0.5103	2764.9053		0.0413		
6	3.259	119447.34	30943.20	W	5.0000e5	0.5103			0.2389		
7	3.380	116673.00	17866.05	VB	5.0000e5	0.5103	2764.9053		0.2334		
8	3.589	122197.41	27021.47	ΒV	5.0000e5	0.5103	2764.9053		0.2444		
9	3.696	182346.41	24590.53	W	5.0000e5	0.5103	2764.9053		0.3647		
10	3.859	77449.53	18066.15	V۷	5.0000e5	0.5103			0.1549		
11	3.940	148079.47			5.0000e5	0.5103			0.2962		
12	4.076	488549.25	95116.73		5.0000e5	0.5103			0.9771		
13	4.238	121314.95	28722.34		5.0000e5	0.5103			0.2426		
. 14	4.325		26111.65		5.0000e5	0.5103			0.2052		
15	4.447	163174.91	31459.65		4.9999e5	0.5103			0.3264		
16	4.574	314296.88			5.0000e5	0.5103			0.6286		
17	4.662	428604.94	64617.75		5.0000e5	0.5103			0.8572		
18	4.887	307258.56			4.9999e5	0.5103			0.6145		
19	4.978		185767.42		5.0000e5	0.5103			1.4843		
20	5.097	666720.94	72549.02		5.0000e5	0.5103			1.3334		
21	5.306	344099.06			4.9999e5	0.5103		•	0.6882		
22	5.412	229514.36			5.0000e5	0.5103			0.4590		
23	5.544	1308886.75			5.0000e5	0.5103		2 51 110000101151171	2.6178		
24	5.771	1384814.75			1970.0000	0.5103		2-FLUOROBIPHENYL	702.9517		
25	5.952	1198725.00			5.0000e5	0.5103			2.3975		
26	6.131		102984.73		5.0000e5	0.5103			1.2564		
27 28	6.247 6.329		113407.70		5.0000e5	0.5103			1.0044 2.1638		
29	6.501	1081881.13 1527862.25			4.9999e5 5.0000e5	0.5103 0.5103			3.0557		
30	6.585		154345.52		5.0000e5	0.5103			1.5079		
31	6.703		206978.73		4.9999e5	0.5103			2.6557		
32	6.841		187065.44		5.0000e5	0.5103			1.5946		
33	6.922		214942.19		5.0000e5	0.5103			2.2334		
34	7.033		118980.59		5.0000e5	0.5103			1.0451		
35	7.176		453219.56		5.0000e5	0.5103			4.0591		
36	7.263		154335.30		4.9999e5	0.5103			1.5803		
37	7.428		167805.63		5.0000e5	0.5103			2.3476		
38	7.576		200560.89		5.0000e5	0.5103			4.7854		
39	7.811		499107.56		5.0000e5	0.5103			6.8824		
40	8.104		277253.69		1970.0000	0.5103		Total Petroleum Hydr	840.6358		
41	8.179		186155.27		5.0000e5	0.5103			2.4751		
42	8.317		133820.78		5.0000e5	0.5103			1.0073		
43	8.416		529270.13		4.9999e5	0.5103			5.3050		
44	8.539		174471.11		5.0000e5	0.5103			1.6008		
45	8.701		183952.84		1970.0000	0.5103		o-Terphenyl	761.2097		
46	8.766		181350.91		5.0000e5	0.5103			3.3254		
47	8.979		441730.53		5.0000e5	0.5103			5.7547		
48	9.213		160773.25		5.0000e5	0.5103			2.3069		
49	9.324		150895.48		5.0000e5	0.5103			2.4959		

50	9.518	2951732.75	385679.81 VV	5.0000e5	0.5103	2764.9053	5.9035	
51	9.743	738847.63	131076.44 VV	5.0000e5	0.5103	2764.9053	1.4777	
52	9.842	1204491.75	119248.09 VV	5.0000e5	0.5103	2764.9053	2.4090	
53	10.034	1552760.50	306913.63 VV	5.0000e5	0.5103	2764.9053	3,1055	
54	10.238	713608.25	100130.29 VV	5.0000e5	0.5103	2764.9053	1,4272	
55	10.403		102294.06 VV	5.0000e5	0.5103	2764.9053	1.9326	
56	10.530		199846.05 VV	5.0000e5	0.5103	2764.9053	1.9627	
57	10.708		63650.04 VV	5.0000e5	0.5103	2764.9053	0.9505	
58	10.815	220035.78		5.0000e5	0.5103	2764.9053	0.4401	-
59	10.880			5.0000e5	0.5103		0.6171	
60	11.003		121462.09 VV	5.0000e5	0.5103	2764.9053	1.3031	
61	11.170	241649.13		5.0000e5	0.5103	2764.9053	0.4833	
62	11.279	247670.16		5.0000e5	0.5103		0.4953	
63	11.459	328498.19	53148.36 VV	5.0000e5	0.5103	2764.9053	0.4773	
64	11.626			5.0000e5	0.5103			
		182153.69					0.3643	
65	11.897	194325.94		5.0000e5	0.5103	2764.9053	0.3887	
66	12.316	44909.63	7534.34 VV	5.0000e5	0.5103	2764.9053	0.0898	
67	12.558	10644.25	2057.33 VV	5.0000e5	0.5103	2764.9053	0.0213	
68	12.723	9206.88	2249.04 VV	5.0000e5	0.5103	2764.9053	0.0184	
69	12.955	329.72	131.95 VB	5.0000e5	0.5103	2764.9053	0.0007	
70	13.116	2326.00		5.0000e5		2764.9053	0.0047	
			022.72 00				0.0047	
		E/101040 00	0.01-/		75 7210	1 075/-5	2/0/ 0007	
		54181960.00	8.91e6		35.7210	1.9354e5	2404.0803	

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height E	BL Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	5.771 8.701		328679.78 E 183952.84 \		0.5103 0.5103		2-FLUOROBIPHENYL o-Terphenyl	702.9517 761.2097	
		2884397.75	512632.63		1.0206	294.3816		1464.1614	

END

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\TT\_592.TX0

#### Chromatogram

Sample Name: 950926SFBSD

: l:\data\tchrom\pest\hp\_t\TT\_\_592.raw

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor: 1

End Time : 28.25 min

Plot Offset: -1 mV

Sample #: KBD;W

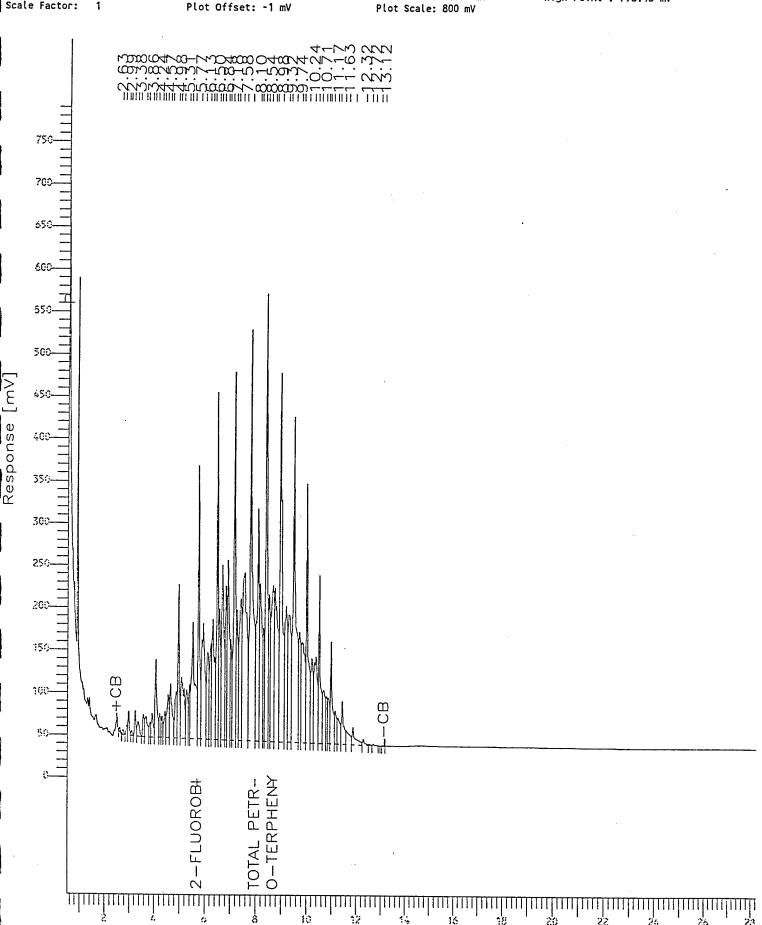
Date: 09/27/95 20:07

Time of Injection: 09/27/95 19:38

Low Point : -1.34 mV

Page 1 of 1

High Point: 798.43 mV



Time [min]



HOUSTON LABORAT 8880 INTERCHANGE DRI

HOUSTON, TEXAS 77054 PHONE (713) 660-0901

#### SPL QUALITY CONTROL REPORT \*\*

Matrix:

Aqueous

Reported on:

10/02/95

Analyzed on:

10/02/95

Analyst:

JM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

> Lead, Total METHOD 6010 \*\*\*

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS .	ND	2.000	1.911	95.6	80 - 120

-9510005

## Samples in batch:

9509929-01D

9509A08-01B

9509A08-02B

9509A08-03B

9509A08-04B

9509A08-05B

9509A08-06B

9509A08-07B

9509A08-08B

COMMENTS:

LCS=SPL ID#: 94-452-14-23

94-452-15-1

94-452-15-2

Incorporat SPL

OC Officer



#### **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

#### SPL QUALITY CONTROL REPORT \*\*

Matrix:

Aqueous

Reported on: 10/02/95 Analyzed on: 10/02/95 Analyst: JM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Lead. Total METHOD 6010 \*\*\*

SPL Sample ID Number	Blank Value mg/L	Amt Added mg/L	Matrix Spike Recovery	Matrix Spike Duplicate Recovery %	Relative Percent Difference	QC Limits Recovery	RPD Max.
9509A08-01B	ND	1.000	87.7	83.7	4.7	80 - 120	20

-9510005

#### Samples in batch:

9509929-01D 9509A08-04B 9509A08-08B

9509A08-01B 9509A08-05B 9509A08-02B

9509A08-03B

9509A08-07B 9509A08-06B

COMMENTS:

QC Officer

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# CHAIN OF CUSTODY AND SAMPLE RECEIPT CHECKLIST

Chain of Custody an Bill # : Pate: 22 Sept 95 Cleint: OPTECH Location: Menneapolis ANGB (Pate / Time) Belling # : 1315-193 Continto 3/3-VOA - water - 19-22-95/1000 TPH-KRO WANT HCl ( 3- VOA - water - [19-22-95/100] VOC SW 8240 1- / liter glass - water [19-22-95/1000] TPH-DRO WDN P HNO3 1- / liter plaste - water [19-22-95/1000] head SW 6010 Samples : JByrd, R. abernathy Wedner Jackyw Jr 19-22-95 19-22-95 FEDEX OFTech Reo'd by: S. West 9/23/95 0915 6°C Intact

Pate

Time

# SPL Houston Environmental Laboratory

# Sample Login Checklist

Dat	te: Time:			
	9/23/95	0915		
SPI	L Sample ID:			
_	9509	929		
				·
			Yes	<u>No</u>
1	Chain-of-Custody (COC) form is pre	esent.		
2	COC is properly completed.		./	
3	If no, Non-Conformance Worksheet	has been completed.		
4	Custody seals are present on the ship	pping container.	· ·	
5	If yes, custody seals are intact.			
6	All samples are tagged or labeled.			
7	If no, Non-Conformance Worksheet	has been completed.		
8	Sample containers arrived intact			
9	Temperature of samples upon arriva	1:		
				6° C
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	68591	22896
		Other:		
11	Method of sample disposal:	SPL Disposal	/	
		HOLD		
		Return to Client		

Date:

9/23/95

Vame:

S-West

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#### **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

SPL, INC.

#### REPORT APPROVAL SHEET

WORK ORDER NUMBER: 95 - 10 - C10

Approved for release by:

M. Scott Sample, Laboratory Director

Date: 11 15 95

Karan Satter Fold Project

Karen Satterfield), Project Manager

Date: 11/15/95



#### **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

DATE: 11/15/9

# Certificate of Analysis No. H9-9510C10-01

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

PROJECT: OPTECH/Minneapalis

SITE: Minn ANGB

SAMPLED BY: Operational Technology

SAMPLE ID: 651-001 MW B

**PROJECT NO: 1315-197** 

MATRIX: WATER

DATE SAMPLED: 10/26/95 16:05:0

DATE RECEIVED: 10/27/95

				<del></del>
	ANALYTICAL			UNIT
PARAMETER		RESULTS	DETECTION LIMIT	UNIT
GC/FID Diesel-Extractables WI LUFT DRO Analyzed by: SEG		1.83	1.0	mg/
Date: 11/03/95 20	:15:00			
Liquid-liquid extraction  METHOD 3510 ***  Analyzed by: DB  Date: 10/30/95 13	•15•00	10/30/95		
Date: 10/30/93 13	. 13.00		0.5	ma
GC/FID Gasoline-Purgeable WI LUFT GRO Analyzed by: VHZ Date: 11/03/95 14		5.5	0.5	mg į
Acid Digestion-Aqueous, I METHOD 3010 *** Analyzed by: AM Date: 11/02/95	СР	11/02/95		
Lead, Total METHOD 6010 *** Analyzed by: JM Date: 11/07/95		ND 	0.1	mg

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA \*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. \*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

#### Certificate of Analysis No. H9-9510C10-01

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

11/15/95

**PROJECT:** OPTECH/Minneapalis

SITE: Minn ANGB

SAMPLED BY: Operational Technology

**SAMPLE ID:** 651-001 MW B

PROJECT NO: 1315-197
MATRIX: WATER

DATE SAMPLED: 10/26/95 16:05:00

DATE RECEIVED: 10/27/95

ANA	LYTICAL DATA		
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	9	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	. 10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	180	5	ug/L
2-Hexanone	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	580	25	ug/L

METHOD: 8240, Volatile Organics - Water (continued on next page)



#### **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9510C10-01

Operational Tech

SAMPLE ID: 651-001 MW B

SURROGATES	AMOUNT	%	LOWER	UPPER
	SPIKED	RECOVERY	LIMIT	LIMIT
1,2-Dichloroethane-d4	50 ug/L	94	76	114
Toluene-d8	50 ug/L	102	88	110
4-Bromofluorobenzene	50 ug/L	110	86	115

DATE/TIME: 10/29/95 18:57:00 ANALYZED BY: JC

METHOD: 8240, Volatile Organics - Water

\* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

#### COMMENTS:

Page 1

ata File: /chem/l.i/l951029.b/l302s19.d

eport Date: 31-Oct-1995 15:26

#### SPL Labs

Volatiles by 624/8240

ata file : /chem/l.i/1951029.b/l302s19.d

ab Smp Id: 9510C10-01A Client Smp ID: 651-001 MW B

Inj Date : 29-OCT-95 18:57 Operator : JC Operator Inst ID: l.i

np Info : 9510C10-01A-8240W/1X isc Info : L302W1/L302B01/L302CC1

Comment

ethod : /chem/l.i/1951029.b/lvoclpw.m

Teth Date: 31-Oct-1995 15:20 jimmy cal Date: 29-OCT-1995 07:49
Als bottle: 27 Quant Type: ISTD Cal File: 1302cc1.d

il Factor: 1.000 htegrator: HP RTE Target Version: 3.10

Compound Sublist: normal.sub

ζ			•		CONCENTRA	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
pounds	MASS	RT	EXP RT REL F	T RESPONSE	(ng)	( ug/L)
	====	==	===========	= =======		=====
30 Benzene	78.00	6.182	6.178 (0.92	9) 52416	47	9
1 53 Xylene (Total)	106.00			1316561	3000	590
54 Ethylbenzene	106.00	11.183	11.179 (1.03		920	180
55 m,p-Xylene(s)	106.00	11.352	11.348 (1.04		3000	590(A)
23 Bromochloromethane	128.00	4.934	4.921 (1.00		250	390 (A)
32 1,4-Difluorobenzene	114.00	6.654	6.642 (1.00		250	
50 Chlorobenzene-d5	117.00	10.835	10.831 (1.00		250	
26 1,2-Dichloroethane-d4 ·	102.00	5.709	5.706 (1.15		240	47
43 Toluene-d8	98.00	8.883	8.879 (0.82		250	51
61 Bromofluorobenzene	95.00	12.511	12.507 (1.15		270	55

#### QC Flag Legend

Target compound detected but, quantitated amount exceeded maximum amount.

Page 6

Data File: /chem/l.i/1951029.b/l302s19.d

Report Date: 31-Oct-1995 15:26

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1302s19.d

Lab Smp Id: 9510C10-01A Analysis Type: VOA Quant Type: ISTD

Operator: JC

Method File: /chem/l.i/1951029.b/lvoclpw.m

Misc Info: L302W1/L302B01/L302CC1

Calibration Date: 10/29/95 Calibration Time: 0749

Client Smp ID: 651-001 MW B

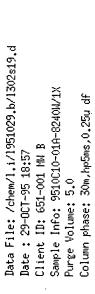
Level: LOW

Sample Type: WATER

COMPOUND  ===================================	STANDARD ======= 48718 216810 182758	LOWER ======= 24359 108405	LIMIT UPPER ======= 97436 433620 365516	SAMPLE ======= 43632 205138 169258	
-----------------------------------------------	--------------------------------------------------	-------------------------------------	--------------------------------------------------------	------------------------------------------------	--

	COMPOUND  ===================================	STANDARD ======= 4.92 6.64 10.83	RT LOWER ====================================	LIMIT UPPER ======= 5.42 7.14 11.33	SAMPLE ======= 4.93 6.65 10.83	% DIFF ====== 0.26 0.19 0.03
--	-----------------------------------------------	----------------------------------------------	-----------------------------------------------------	----------------------------------------------------	--------------------------------------------	------------------------------------------

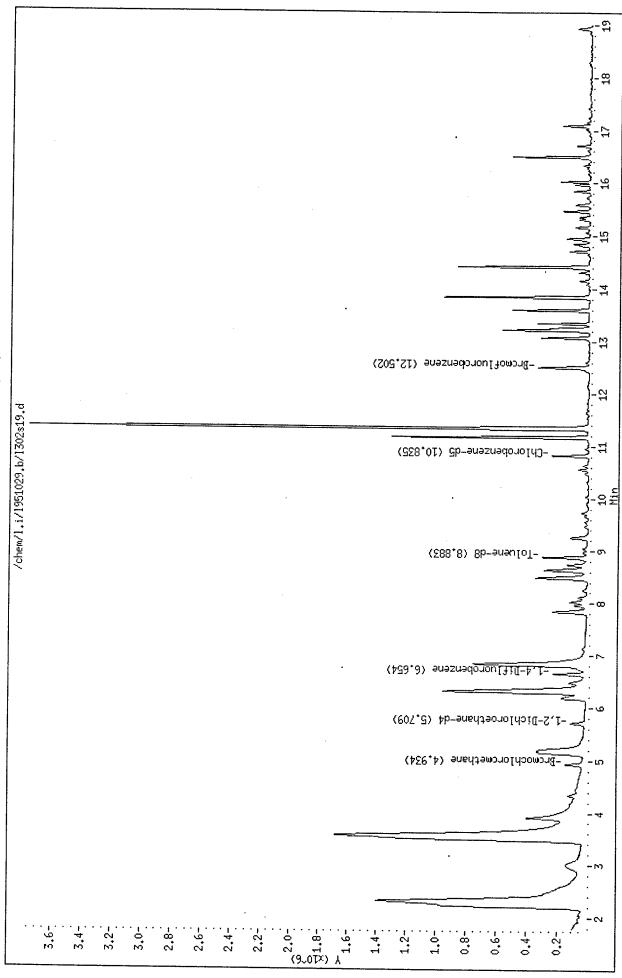
AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area. RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Instrument: 1.i

Operator: JC Column diameter:

0.25



Data File: /chem/l.i/1951029.b/1302s19.d

Date: 29-0CT-95 18:57 Client ID: 651-001 MW B

Sample Info: 9510C10-01A-8240W/1X

Purge Volume: 5.0

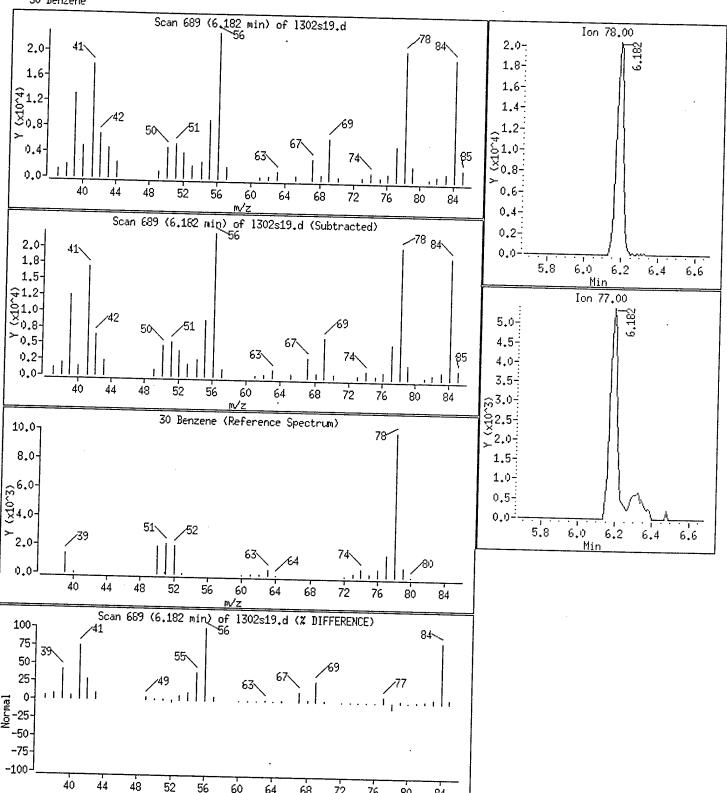
Column phase: 30m, hp5ms, 0.25u df

Instrument: 1.i

Operator: JC

Column diameter: 0.25





72

76

80

84

68

60

Data File: /chem/l.i/1951029.b/1302s19.d

Date : 29-0CT-95 18:57 Client ID: 651-001 MW B

Sample Info: 9510C10-01A-8240W/1X

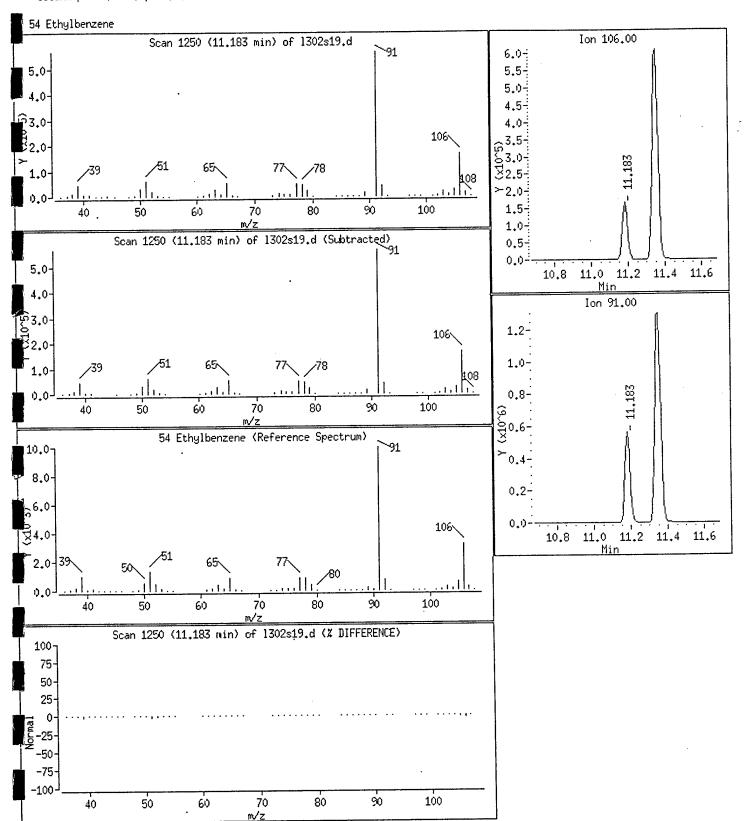
Purge Volume: 5.0

Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

Operator: JC

Column diameter: 0.25



Data File: /chem/l.i/1951029.b/1302s19.d

Date: 29-0CT-95 18:57 Client ID: 651-001 MW B

Instrument: l.i

Sample Info: 9510C10-01A-8240W/1X

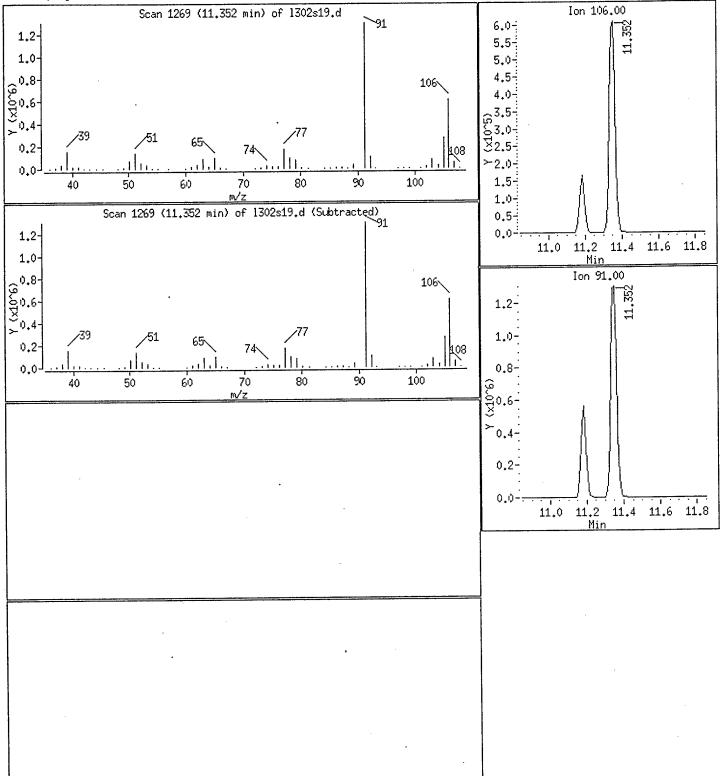
Purge Volume: 5.0

Operator: JC

Column phase: 30m,hp5ms,0.25u df

Column diameter: 0.25





Page 1

Pata File: /chem/l.i/1951031.b/1304s13.d

Report Date: 01-Nov-1995 07:22

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951031.b/l304s13.d

Inj Date : 31-OCT-95 18:29

Operator : JC Inst ID: 1.i

fmp Info : 9510C10-01A-8240W/5X
Misc Info : L304W1/L304B01/L304CC1

Comment

Method : /chem/l.i/1951031.b/lvoclpw.m

 Meth Date : 01-Nov-1995 07:22 jimmy
 Quant Type: ISTD

 Cal Date : 31-OCT-1995 08:15
 Cal File: 1304cc1.d

Als bottle: 24 Dil Factor: 5.000 Integrator: HP RTE

tegrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

							CONCENTRA	TIONS
		QUANT SIG					ON-COLUMN	FINAL
	mpounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ug/L)
=		====	==	=====			. ======	======
11	53 Xylene (Total)	106.00				218559	580	580
	54 Ethylbenzene	106.00	11.082	11.073	(1.033)	44569	150	150
	55 m,p-Xylene(s)	106.00	11.243	11.242	(1.048)	218559	580	580
	23 Bromochloromethane	128.00	4.807	4.798	(1.000)	43127	250	•
*	32 1,4-Difluorobenzene	114.00	6.536	6.527	(1.000)	183739	250	
*	50 Chlorobenzene-d5	117.00	10.726	10.716	(1.000)	151047	250	
	26 1,2-Dichloroethane-d4 .	102.00	5.591	5.582	(1.163)	15704	250	50
	43 Toluene-d8	98.00	8.773	8.764	(0.818)	201511	260	52
\$	61 Bromofluorobenzene	95.00	12.401	12.401	(1.156)	73153	240	49

Data File: /chem/l.i/1951031.b/l304s13.d

Report Date: 01-Nov-1995 07:22

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: l.i
Lab File ID: l304s13.d

Lab Smp Id: 9510C10-01A

Analysis Type: VOA Quant Type: ISTD

Operator: JC

Method File: /chem/l.i/1951031.b/lvoclpw.m

Misc Info: L304W1/L304B01/L304CC1

Calibration Date: 10/31/95 Calibration Time: 0815

Client Smp ID: 651-001 MW B Level: LOW

Sample Type: WATER

LOWER			
TOWER	UPPER	SAMPLE	% DIFF
=======	=======	=======	======
23068	92270	43127	-6.52
100195	400780	183739	-8.31
83530	334122	151047	-9.59
_	100195	100195 400780	100195 400780 183739

		RT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
23 Bromochloromethane	4.80	4.30	5.30	4.81	0.19
32 1,4-Difluorobenzene	6.53	6.03	7.03	6.54	0.14
50 Chlorobenzene-d5	10.72	10.22	11.22	10.73	0.08
				,	

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area. RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

File: /chem/l.

Data File: /chem/l.i/1951031.b/l304s13.d

Date : 31-0CT-95 18:29 Client ID: 651-001 MW B

Instrument: 1.i

Sample Info: 9510C10-01A-8240W/5X

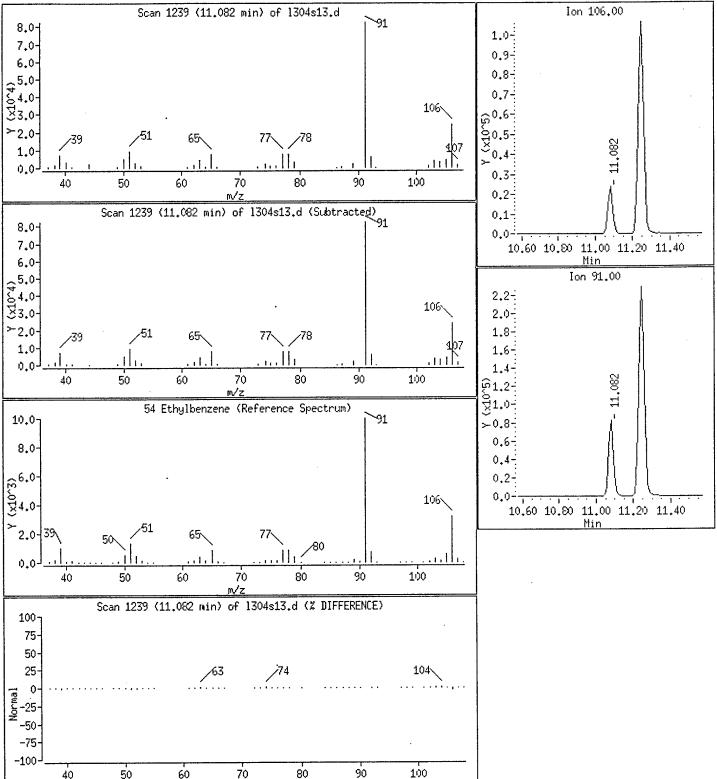
Purge Volume: 5.0

Operator: JC

Column phase: 30m, hp5ms, 0.25u df

Column diameter: 0.25





Data File: /chem/l.i/1951031.b/1304s13.d

Date : 31-0CT-95 18:29 Client ID: 651-001 MW B

Sample Info: 9510C10-01A-8240W/5X

Purge Volume: 5.0

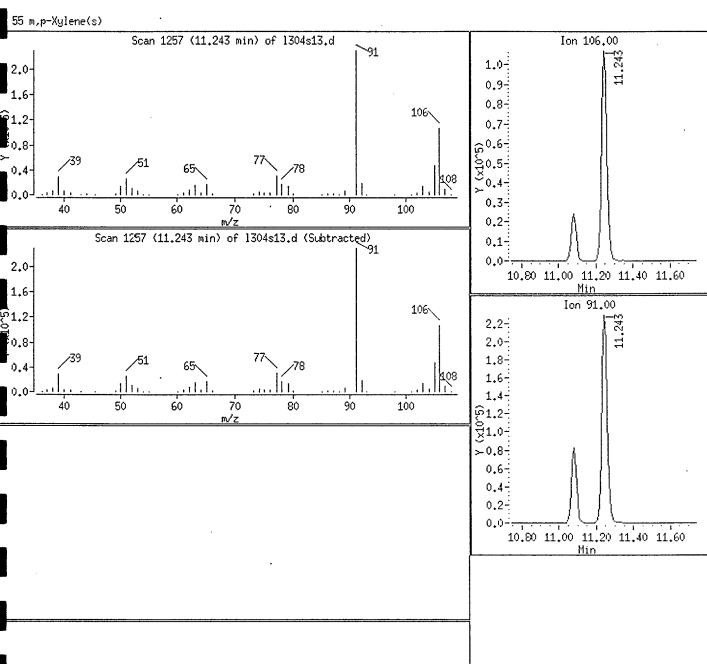
: 5.0

Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

Operator: JC

Column diameter: 0.25



Software Version: 3.2 <16C20>

: 11/6/95 08:34 AM Time Sample Name : 9510C10-01B

Sample Number: SC ;W

Operator : SEG/DR

Study

: MODWM

Channel: B A/D mV Range: 1000

Instrument : HP\_T AutoSampler : HP 7673A

Rack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 11/3/95 08:15 PM

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : L:\DATA\TCHROM\PEST\HP\_T\TT\_\_153.RAW

Result File : C:\WINDOWS\TEMP\\rst3937.rst

Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process file : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELTT.smp

Sequence File : <none>

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

#### Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height (uV)	BL	Area/ Amount	RF	VALUE	DIESEL AMT.	Component Name	Raw Amount	
		[04 365]									
1	2.105	17125.03	5215.01	BB	5.0000e5		0.5103	114.5834		0.0343	
2	2 306	42187.81			5.0000e5		0.5103			0.0844	
3	2.398	122668.41	22152.92	2 ۷۷	5.0000e5		0.5103			0.2453	
4	2.518	<b>66453.53</b>	12203.36	S VV	5.0000e5		0.5103			0.1329	
5	2.656	59013.25	13138.14	٧٧	4.9999e5		0.5103			0.1380	
6	2.822	75608.56	19066.98	3 VB	5.0000e5		0.5103			0.1512	
7	3.036	5334.94	1339.02	BV.	5.0000e5		0.5103			0.0107	
8	3.167	142682.06			5.0000e5		0.5103			0.2854	
9.	3.329	42217.50	7948.46		5.0000e5		0.5103			0.0844	
10	3.505	41618.50			5.0000e5		0.5103	114.5834		0.0832	
11	3.599	58693.13	6977.37		5.0000e5		0.5103			0.1174	
12	3.777	10649.53	3727.47		5.0000e5		0.5103			0.0213	•
13	3.862	46744.00	7796.18		5.0000e5		0.5103			0.0935	28°lo
14	4.068	15753.67	3769.63		4.9999e5		0.5103			0.0315	28 'B
15	4.175	25510.50	5.10.25	VV 3	5.0000e5		0.5103			0.0510	
15	4.246	23892.66	5/23.58		5.0000e5		0.5103			0.0478	•
17	4.376	6423.69	2146.77		5.0000e5		0.5103			0.0129	
18	4.504	48626.09	11044.50		5.0000e5		0.5103			0.0973	
19	4.594	26564.00	4982.40		5.0000e5		0.5103			0.0531 0.0815	
20	4.808	40730.06	4768.59		5.0000e5		0.5103			0.0738	•
21	5.032	36910.19	6140.13		5.0000e5		0.5103			0.0207	
22	5.249	10347.28	2059.65		4.9999e5		0.5103			1.6216	
23	5.346	210789.31	132777.23	2 VE	5.0000e5		0.5103		2-FLUOROBIPHENYL	54.1939	
24	5.693	106762.00			1970.0000		0.5103		2"FLUOROBIFHENIE	0.2699	
25	5.840	134942.88	9929.13 ( 7337.7		5.0000e5		0.5103			0.0655	
25	6.279	32728.94			5.0000e5		0.5103			0.0434	
27	5.466 •	21686.50	2021.19		5.0000e5 5.0000e5		0.5103			0.0469	
28 <b>2</b> 9	6.656 6.785	23470.84 10038.58	3024.20 23 <b>9</b> 0.0		5.0000e5		0.5103			0.0201	
	6.871	16182.88	2527.9		5.0000e5		0.5103			0.0324	
30	7.114	2570.94	343.6		5.0000e5		0.5103			0.0053	
31	7.354	1173.84	222.7		5.0000e5		0.5103			0.0024	5°L
<b>3</b> 2 <b>3</b> 3	7.483	5414.63	733.9		5.0000e5		0.5103			0.0128	91-
34	7.828	2702.38	247.9		5.0000e5		0.5103			0.0054	-
35	8.055	5908.56	925.2	3 VB	1970.0001		0.510		Total Petroleum Hydr	2.9993	
36	8.401	7958.50	1704.7	1 24	5.0000e5		0.510	114 5834		0.0159	
37	8.58	4152.44	473.9		1970.0000		0.510	3 114.5834	o-Terphenyl	2.1078	
33	8.771	6219.00	175.4		5.0000e5		0.510	3 114.5834		0.0124	
39	9.517	6813.00	1747.6		5.0000e5		0.510		•	0.0136	
43	9.874	2658.00	220.9		5.0000e5		0.510			0.0053	
41	10.753	1039.00			5.0000e5		0.510			0.0022	
42	11.517	1624.00			5.0000e5		0.510			0.0033	
43	12.526	3471.13			5.0000e5		0.510			0.0069	
44	13.630	59287.50			5.0000e5					0.1186	
45	15.049	913.56			5.0000e5	•	0.510			0.0018	

9510010

 $\tau_{o}$ 

END

22A. 54. 0.68 (0. 40900) (2.01,000) (1.00)

Sample Name : 9510C10-01B

FileName : L:\DATA\TCHROM\PEST\HP\_T\TT\_\_153.RAW

Method : DIESELT.ins

Start Time : 0.50 min

End Time : 28.25 min Plot Offset: 16 mV

Sample #: SC ;W Date : 11/6/95 08:34 AM

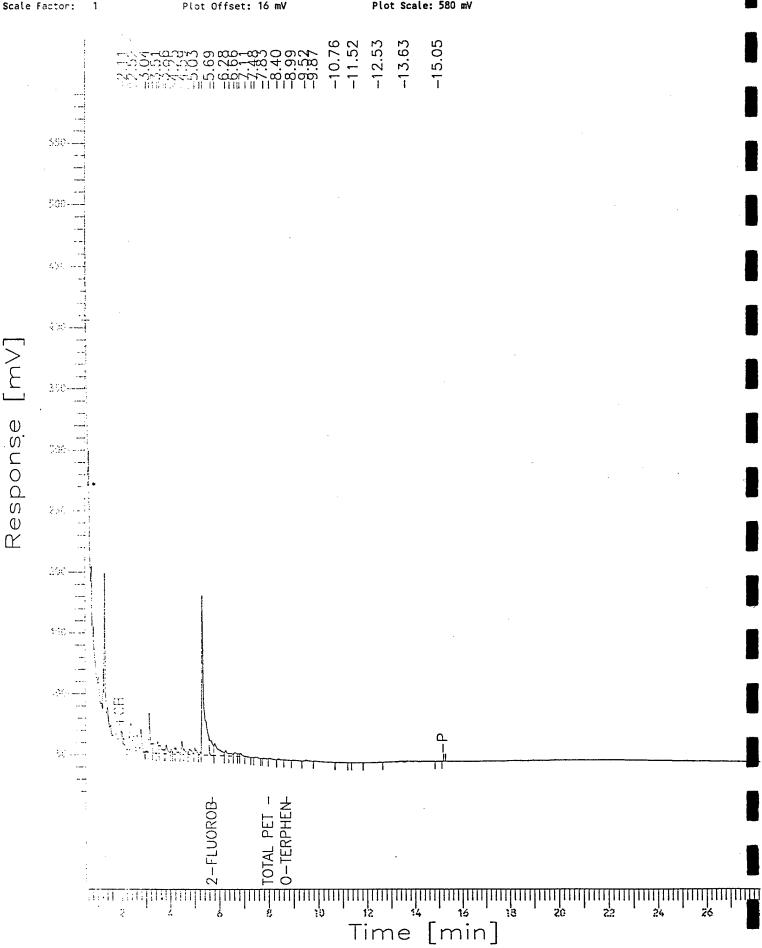
Time of Injection: 11/3/95

Low Point : 15.67 mV

08:15 PM High Point: 595.14 mV

Page 1 of 1

Plot Scale: 580 mV



PAGE

# \*\* SPL BATCH QUALITY CONTROL REPORT \*\*

Modified 8015 - Gasoline

Matrix: Units:

Aqueous

mg/L

Batch Id: HP\_S951103121410

#### LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Petr. Hydrocarbon	ND	1.0	0.93	93.0	56 - 139

#### MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	- I		e Matrix Sp.		Spike MS/MSD te Relative %		QC Limits(***) (Advisory)	
	<2>	<3>	Result	Recovery <4>	Result	Recovery	Difference	RPD Max.	Recovery Range	
GASOLINE PETR. HYDROCARBON	ND	0.9	0.56	62.2	0.57	63.3	1.75	18	40 - 158	

Analyst: VHZ

Sequence Date: 11/02/95

SPL ID of sample spiked: 9510D68-01A\

Sample File ID: S\_\_\_733.TX0

Method Blank File ID:

Blank Spike File ID: S\_\_\_725.TX0

Matrix Spike File ID: S\_\_\_728.TX0

Matrix Spike Duplicate File ID: S\_\_\_729.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [( <1> - <2> ) / <3> ] x 100

LCS % Recovery = (<1> / <3> ) x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x 100

(\*\*) = Source: SPL Historical data

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH (SPL ID):

9511011-01A 9511011-02A 9511013-01A 9511013-02A

9511014-01A 9511014-02A 9511035-01A 9510C27-20A

9510C10-01C 9511036-01A

Software Version: 3.2 <16C2O>

Sample Name : 9510C10-01C GRO Sample Number: SC :W;5 : VHZ

Time Study : 11/03/95 14:41 : GROTEW; 1; PQL

Instrument : HP\_S

Operator

AutoSampler : NONE

Channel : A A/D mV Range : 1000

Rack/Vial : 0/0

Interface Serial #: 4148271296 Data Acquisition Time: 11/03/95 14:20

Delay Time : 0.00 min. End Time : 18.21 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : L:\DATA\TCHROM\BTEX\HP\_S\S\_\_\_750.raw

Result File : C:\DOS\~rst216A.rst

Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXS.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\8015s.prc Sample File : L:\DATA\TCHROM\BTEX\METHODS\SWG09185.smp

Sequence File : <none>

Inj. Volume : 2 ul Sample Amount : 1.0000

Area Reject : 100.00

Dilution Factor : 5.00

426.26.9 x 0.00-1567~=1.09429 x

					but the second			, ,	
Pani	ak Ret Time	<b>A</b> = -			PURFID Area Percen	nt Report	25.4)		/
#		Area [uV-sec]	Height B(	L Area/ Amount	RF VALUE	PURFID AMT. PPM		RAW AMT	RAW AMT. PURFID PPM
1		54197.38	10208.93 BV	V 1.0000e6	2.5672				
2		6399.51	1442.48 VV	V 1.0000e6	2.5672	7.0212 7.0212		0.0542	
3		22334.44	6380.22 VV	V 1.0000e6	2.5672	7.0212 7.0212		0.0064	1.4042
4		84688.19	16483.16 VB	B 1.0000e6	2.5672	7.0212 7.0212		0.0223	1.4042
5		1422022.13	260240.22 BE	E 1.0000e6	2.5672	7.0212 7.0212		0.0847	1.4042
6		140942.00	28748.55 EV	V 9.9999e5	2.5672	7.0212 7.0212		1.4220	1.4042
7 8		16156.17	2847.24 VV	V 1.0000e6	2.5672	7.0212 7.0212		0.1409	1.4042
8 9		155419.25	23215.01 VV	/ 1.0000e6	2.5672	7.0212 7.0212		0.0162	1.4042
9 10		35376.38	5616.45 VB	3 1.0000e6	2.5672	7.0212 7.0212		0.1554	1.4042
10 11		398040.25	48573.43 BV	9.9999e5		7.0212		0.0354	1.4042
11		321474.75	35472.14 VE	9.9999e5	2.5672	7.0212		0.3980	1.4042
13	4.791 4.962	39625.00	3537.32 EV	/ 1.0000e6	2.5672	7.0212		0.3215	1.4042
14	4.962 5.309	9819.00	1770.79 VB	6159.2568	2.5672		Benzene	0.0396	1.4042
15	5.309 5.842	• 243462.53 800087 10	39949.15 BB	3359.0647	2.5672		1,4-DIFLUOROBENZENE	1.5942	1.4042
16	5.842 6.156	809987.19 101856.00	104648.34 BE		2.5672	7.0212	TET	72.4793 0.0000	1.4042
17	6.156 6.393	101856.00 100186 50	9653.87 EV		2.5672	7.0212		0.0000 0.1019	1.4042
18	6.393 6.854	100186.50 21797.28	9521.38 VV		2.5672	7.0212		0.1019 0.1002	1.4042
19	7.408		1503.01 VB		2.5672	7.0212			1.4042
20	7.408	11786.50	1227.85 BB	1.0000e6	2.5672	7.0212	,	0.0218	1.4042
21	7.857 8.241	6453.00 8727.00	613.79 BB		2.5672	7.0212		0.0118 0.0065	1.4042
22	8.241 10.046	8727.00 16242.00	731.91 BB		2.5672	7.0212	Toluene	0.0065 1.4330	1.4042
23	10.046	16242.00 1752.00	1208.48 BB	1.0000e6	2.5672	7.0212	<del></del>	1.4330 0.0162	1.4042
23 24	10.581	1752.00 136955.94	355.06 BB		2.5672	7.0212		0.0162 0.0018	1.4042
24 25	11.317	136955.94 467109.78	41727.26 BV		2.5672	7.0212	Ethyl_Benzene	0.0018 22.6914	1.4042
26	11.734	467109.78 20207.23	145708.91 VV		2.5672	7.0212 1	m and p Xylene	22.6914 94.5357	1.4042
27	11.734	20207.23 21613.88	2889.03 VV		2.5672	7.0212	o-Xylene	94.5357 3.3491	1.4042
28	12.053	21613.88 3560.00	7451.34 VE	1.0000e6	2.5672	7.0212		3.3491 0.0216	1.4042
29	12.033	3560.00 153831.81	1118.48 EV		2.5672	7.0212		0.0216	1.4042 1.4042
30	12.133	37820.19	67802.91 VV		2.5672	7.0212	4-BROMOFLUOROBENZENE	87.4012	1.4042
31	12.318	37820.19 114773.16	12700.18 VV		2.5672	7.0212		0.0378	1.4042
32	12.512	52469.00	33041.96 VV		2.5672	7.0212	1,3,5-Trimethylbenze	19.7059	1.4042
33	12.595	100639.19	20694.19 VV 38887.34 VE	1.0000e6	2.5672	7.0212		0.0525	1.4042
34	12.697	10314.00	38887.34 VE 3790.71 EV		2.5672	7.0212 1	1,2,4-Trimethylbenze	17.9457	1.4042
35	12.765	14013.87	3790.71 EV 4657.20 VV	1.0000e6	2.5672	7.0212	,	0.0103	1.4042
36	12.868	81674.66	4657.20 VV 35263.88 VV	1.0000e6 5419 4605	2.5672	7.0212		0.0140	1.4042
37	12.999	55916.53	35263.88 VV 10172.71 VV		2.5672	7.0212 1	1,2,3-Trimethylbenze	15.0706	1.4042
38	13.205	43936.11	6586.05 VV	1.0000e6 9.999e5	2.5672	7.0212	,	0.0559	1.4042
39	13.315	23771.50	5378.24 VV	9.9999e5 1.0000e6	2.5672	7.0212		0.0439	1.4042
40	13.436	33640.66	6508.49 VV		2.5672	7.0212		0.0238	1.4042
41	13.529	3194.34	1221.96 VV	1.0000e6 1.0000e6	2.5672	7.0212		0.0336	1.4042
42	13.665	34222.39	1221.96 VV 11827.71 VB		2.5672	7.0212		0.0032	1.4042
43	13.832	12130.14	4077.07 BV	1.0000e6 1.0000e6	2.5672	7.0212		0.0342	1.4042
44	13.916	2788.37	1163.80 VB	1.0000e6 1.0000e6	2.5672	7.0212		0.0121	1.4042
45	14.051	11253.50	1163.80 VB 5006.10 BB	1.0000e6	2.5672	7.0212		0.0028	1.4042
46	14.288	2247.00	467.06 BB	9.9999e5 9.9999e5	2.5672	7.0212		0.0028	1.4042
47	14.628	1574.00	467.06 BB 470.13 BB	9.9999e5	2.5672	7.0212		0.0023	1.4042
48	15.394	1508.00	470.13 BB 818.27 BB	1.0000e6 1.0000e6	2.5672	7.0212		0.0023	1.4042
	*********		010.2/ BB	1.0000e6	2.5672	7.0212		0.0015	1.4042
		5469909.00	1.08e6		123.2256	337.0165		• • • • • • • • • • • • • • • • • • • •	
		t-1.1. 29.2		190 20		337.0165		339.5287	67.4033

END	*=============	=======================================	=======================================
		**************	=======================================

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#### Chromatogram

Sample Name: 9510C10-01C GRO

: L:\DATA\TCHROM\BTEX\HP\_S\S\_

Method : BTEXS.ins

Start Time : 0.00 min Scale Factor:

End Time : 18.21 min Plot Offset: 1 mV

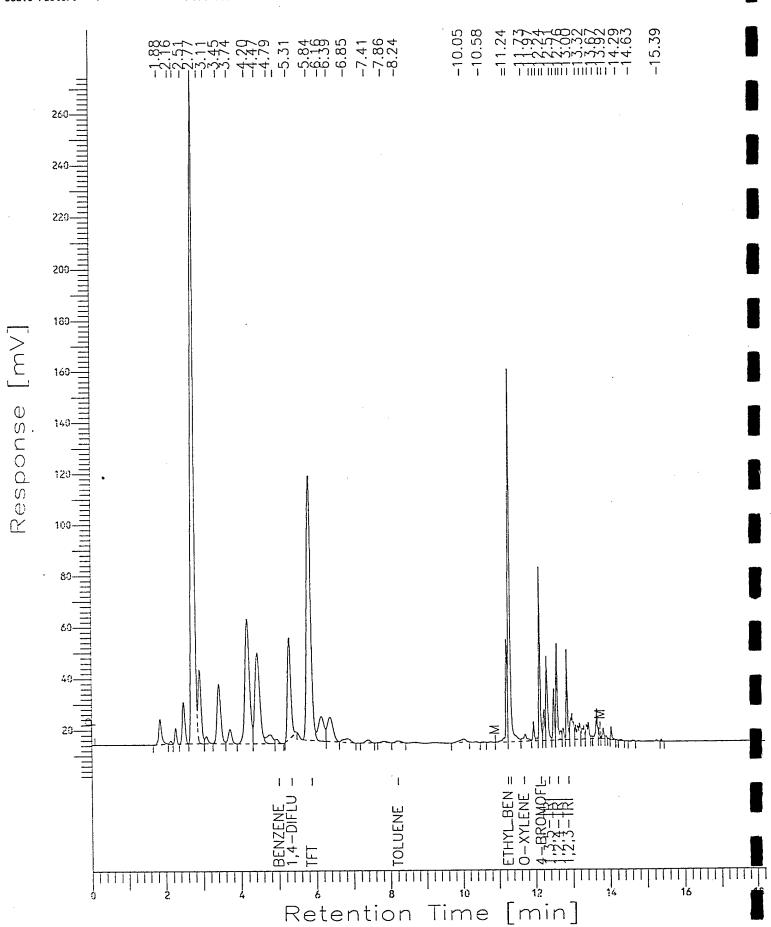
Sample #: SC ;W;5 Date : 11/03/95 14:42

Page 1 of 1

Time of Injection: 11/03/95 14:20 Low Point : 1.29 mV

High Point : 274.65 mV

Plot Scale: 273 mV



Software Version: 3.2 <16C2O> Sample Name : 951OC1O-01C GRO

Sample Number: SC ;W;5

Time Study : 11/03/95 14:38 : GROTEW;1;PQL

Operator : VHZ

: VHZ

Channel: A

A/D mV Range : 1000

Instrument : HP\_S AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : 4148271296 Data Acquisition Time: 11/03/95 14:20

Delay Time : 0.00 min. End Time : 18.21 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_s\s\_\_750.raw
Result File : l:\data\tchrom\btex\hp\_s\s\_\_750.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXS.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\8015S.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\SWG09185.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXS.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 5.00

5.3

#### PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/	RF VALUE	PURFID AMT.		RAW AMT	RAW AMT.
<b></b>		[01 260]	tavj	Amount		PPM	Name	PPB	PURFID PPM
1	1.875	54197.38	10208.93 BV	1.0000e6	2.5672	6.8067		0.0542	1.3613
2	2.162	6399.51	1442.48 VV	1.0000e6	2.5672	6.8067		0.0064	1.3613
3	2.290	22334.44	6380.22 VV	1.0000e6	2.5672	6.8067		0.0223	1.3613
4	2.506	84688.19	16483.16 VB	1.0000e6	2.5672	6.8067		0.0847	1.3613
5	2.769	1422022.13	260240.22 BE	1.0000e6	2.5672	6.8067		1.4220	1.3613
6	2.939	140942.00	28748.55 EV	9.9999e5	2.5672	6.8067		0.1409	1.3613
7	3.109	16156.17	2847.24 VV	1.0000e6	2.5672	6.8067		0.0162	1.3613
_ 8	3.449	155419.25	23215.01 VV	1.0000e6	2.5672	6.8067		0.1554	1.3613
9	3.740	35376.38	5616.45 VB	1.0000e6	2.5672	6.8067		0.0354	1.3613
10 -	4.203	398040.25	48573.43 BV	9.9999e5	2.5672	6.8067		0.3980	1.3613
11	4.466	321474.75	35472.14 VE	9.9999e5	2.5672	6.8067		0.3215	1.3613
12	4.791	39625.00	3537.32 EV	1.0000e6	2.5672	6.8067		0.0396	1.3613
13	4.962	9819.00	1770.79 VB	6159.2568	2.5672	6.8067	Benzene	1.5942	1.3613
14	5.309	• 243462.53	39949.15 BB	3359.0647	2.5672	6.8067	1,4-DIFLUOROBENZENE	72.4793	1.3613
15	5.842	809987.19	104648.34 BE		2.5672	6.8067	TFT	0.0000	1.3613
16	6.156	101856.00	9653.87 EV	1.0000e6	2.5672	6.8067	•	0.1019	1.3613
17 18	6.393 6.854	100186.50	9521.38 VV	1.0000e6	2.5672	6.8067		0.1002	1.3613
19	7.408	21797.28	1503.01 VB	1.0000e6	2.5672	6.8067		0.0218	1.3613
20	7.857	11786.50	1227.85 88	1.0000e6	2.5672	6.8067		0.0118	1.3613
21	8.241	6453.00	613.79 BB	1.0000e6	2.5672	6.8067		0.0065	1.3613
= 22	10.046	8727.00	731.91 BB	6090.2051	2.5672		Toluene	1.4330	1.3613
23	10.581	16242.00 1752.00	1208.48 BB	1.0000e6	2.5672	6.8067		0.0162	1.3613
24	11.240	135605.19	355.06 BB	1.0000e6	2.5672	6.8067		0.0018	1.3613
25	11.317	463057.56	41608.35 BV	6035.5952	2.5672	6.8067	Ethyl_Benzene	22.4676	1.3613
26	11.734	14948.25	145561.72 VV 2588.63 VB	4941.0942	2.5672	6.8067	m and p Xylene	93.7156	1.3613
27	11.965	18869.61	7063.68 BE	6033.5762 1.0000e6	2.5672	6.8067	o-Xylene	2.4775	1.3613
28	12.053	1921.00	684.82 EV	1.0000e6	2.5672 2.5672	6.8067		0.0189	1.3613
29	12.135	150617.98	67346.71 VV	1760.0653	2.5672	6.8067	/ 2201051 110222512512	0.0019	1.3613
30	12.244	35322.45	12199.62 VV	1.0000e6	2.5672	6.8067 6.8067	4-BROMOFLUOROBENZENE	85.5752	1.3613
31	12.318	109272.36	32511.61 VV	5824.3125	2.5672	6.8067	1,3,5-Trimethylbenze	0.0353	1.3613
32	12.512	48845.11	20085.42 VV	1.0000e6	2.5672	6.8067	1,3,5-irimethylbenze	18.7614	1.3613
33	12.595	96028.41	38244.80 VE	5607.9839	2.5672		1,2,4-Trimethylbenze	0.0489	1.3613
34	12.697	7651.00	3095.74 EV	1.0000e6	2.5672	6.8067	1,2,4-11 methytbenze	17.1235 0.0077	1.3613
35	12.765	10438.09	3946.30 VB	1.0000e6	2.5672	6.8067		0.0104	1.3613
36	12.868	73800.16	34189.41 BV	5419.4600	2.5672		1,2,3-Trimethylbenze	13.6176	1.3613 1.3613
37	12.999	40181.14	8213.06 VV	1.0000e6	2.5672	6.8067	1,2,3 IT IMECHY (Delize	0.0402	1.3613
38	13.096	5229.76	3112.31 VB	1.0000e6	2.5672	6.8067		0.0052	1.3613
39	13.272	2844.50	1469.95 BB	1.0000e6	2.5672	6.8067		0.0032	
40	13.390	7995.00	3346.21 BB	1.0000e6	2.5672	6.8067		0.0028	1.3613 1.3613
41	13.529	553.00	344.18 BB	9.9999e5	2.5672	6.8067		0.0006	1.3613
42	13.665	19385.95	9474.88 BB	1.0000e6	2.5672	6.8067		0.0008	1.3613
43	13.832	12130.14	4077.07 BV	1.0000e6	2.5672	6.8067		0.0194	1.3613
44	13.916	2788.37	1163.80 VB	1.0000e6	2.5672	6.8067		0.0121	1.3613
45	14.051	11253.50	5006.10 BB	9.9999e5	2.5672	6.8067			
46	14.288	2247.00	467.06 BB	9.9999e5	2.5672	6.8067		0.0113	1.3613
47	14.628	1574.00	470.13 BB	1.0000e6	2.5672	6.8067		0.0023	1.3613
48	15.394	1508.00	818.27 BB	1.0000e6	2.5672	6.8067		0.0016 0.0015	1.3613 1.3613
			•				****************	0.0015	1.3013
		5302811.50	1.06e6		123.2256	326.7211	· • • • • • • •	332.4323	65.3442
_								JJC.7JEJ	05.3776

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	5.309 5.842 12.135	243462.53 809987.19 150617.98	39949.15 BB 104648.34 VE 67346.71 VV		2.5672 2.5672 2.5672	1.5455	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	72.4793 0.0000 85.5752	0.3091
		1204067.75	211944.19		7.7016	4.6366		158.0545	0.9273

END

Report Stored in ASCII File: L:\data\tchrom\btex\hp\_s\S\_\_750.TX0

#### Chromatogram

Sample Name: 9510C10-01C GRO

FileName : l:\data\tchrom\btex\hp\_s\S\_\_\_750.raw

Method : BTEXS.ins

Start Time : 0.00 min Scale Factor: 1

End Time : 18.21 min

Plot Offset: 1 mV

Sample #: SC ;W;5 Date : 11/03/95 14:38

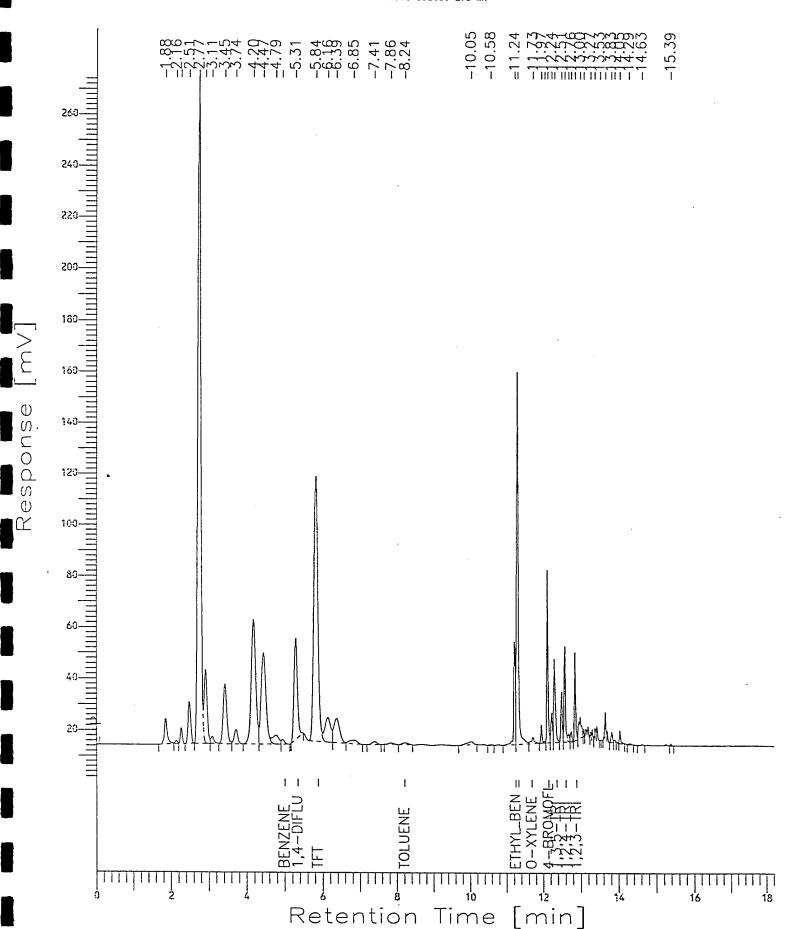
Time of Injection: 11/03/95 14:20

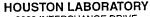
Low Point : 1.29 mV

Plot Scale: 273 mV

High Point: 274.65 mV

Page 1 of 1







8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# Certificate of Analysis No. H9-9510C10-02

Operational Tech

4100 N.W. Loop 410 Ste. 230

San Antonio, TX 78229

ATTN: Russ Cason

11/15/99

PROJECT: OPTECH/Minneapalis

SITE: Minn ANGB

PROJECT NO: 1315-197

MATRIX: WATER

SITE: Minn ANGB

SAMPLED BY: Provided by SPL

DATE SAMPLED: 10/15/95

SAMPLE ID: Trip Blank DATE RECEIVED: 10/27/95

ANALYTICA	L DATA		
PARAMETER	RESULTS	PQL*	UNITS
Acetone	ND	100	ug/L
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
2-Butanone	ND	20	ug/L
Carbon Disulfide	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	- 5	ug/L
1,1-Dichloroethene	ND	. 5	ug/L
1,2-Dichloroethane	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Methylene Chloride	ND	5	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	. ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND .	5	ug/L

METHOD: 8240, Volatile Organics - Water (continued on next page)



#### **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

#### Certificate of Analysis No. H9-9510C10-02

Operational Tech

**SAMPLE ID:** Trip Blank

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	92	76	114
Toluene-d8	50 ug/L	100	88	110
4-Bromofluorobenzene	50 ug/L	92	86	115

ANALYZED BY: JC DATE/TIME: 10/29/95 18:31:00

METHOD: 8240, Volatile Organics - Water

NOTES: \* - Practical Quantitation Limit ND - Not Detected

NA - Not Analyzed

COMMENTS:

Page 1

Data File: /chem/l.i/1951029.b/l302s18.d

Report Date: 31-Oct-1995 15:27

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951029.b/l302s18.d

Lab Smp Id: 9510C10-02A Client Smp ID: TRIP BLANK

Inj Date : 29-OCT-95 18:31

Operator : JC Inst ID: 1.i

Smp Info : 9510C10-02A-8240W/1X Misc Info : L302W1/L302B01/L302CC1

Comment :

Method : /chem/l.i/1951029.b/lvoclpw.m

Meth Date: 31-Oct-1995 15:20 jimmy Quant Type: ISTD Cal Date: 29-OCT-1995 07:49 Cal File: 1302cc1.d

Als bottle: 26 Dil Factor: 1.000 Integrator: HP RTE

: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

	1				CONCENTRA	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	====	==	===== =====	========	=======	
* 23 Bromochloromethane	128.00	4.932	4.921 (1.000)	` 44091	250	
* 32 1,4-Difluorobenzene	114.00	6.652	6.642 (1.000)	187372	250	
* 50 Chlorobenzene-d5	117.00	10.833	10.831 (1.000)	156944	250	
\$ 26 1,2-Dichloroethane-d4	102.00	5.707	5.706 (1.157)	15468	230	46
\$ 43 Toluene-d8	98.00	8.881	8.879 (0.820)	203841	250	50
\$ 61 Bromofluorobenzene	95.00	12.509	12.507 (1.155)	71599	230	46

Data File: /chem/l.i/1951029.b/1302s18.d

Report Date: 31-Oct-1995 15:27

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1302s18.d Lab Smp Id: 9510C10-02A

Analysis Type: VOA Quant Type: ISTD

Operator: JC Method File: /chem/l.i/1951029.b/lvoclpw.m

Misc Info: L302W1/L302B01/L302CC1

Calibration Date: 10/29/95 Calibration Time: 0749 Client Smp ID: TRIP BLANK

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	48718	24359	2.100	44091	-9.50
32 1,4-Difluorobenzene	216810	108405		187372	-13.58
50 Chlorobenzene-d5	182758	91379		156944	-14.12

	·				
2011		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	======	=======	=======	======
23 Bromochloromethane	4.92	4.42	5.42	4.93	0.21
32 1,4-Difluorobenzene	6.64	6.14	7.14	6.65	0.16
50 Chlorobenzene-d5	10.83	10.33	11.33	10.83	0.01
					ļ

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = - 50% of internal standard area. RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

# QUALITY CONTROL DOCUMENTATION

#### 3A WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9510B57 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: LATONIA MWA15

COMPOUND	SPIKE	SAMPLE	MS	MS	QC.
	ADDED	CONCENTRATION	CONCENTRATION	%	LIMITS
	(ug/L)	(ug/L)	(ug/L)	REC #	REC.
1,1-Dichloroethene Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50 50	0 0 19 0	48 50 67 51 50	96 100 96 102 100	61-145 71-120 76-127 76-125 75-130

· · ·	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LI RPD	MITS REC.
1,1-Dichloroethene Trichloroethene Benzene Toluene Chlorobenzene	50 50 50 50 50 50	47 49 66 50 49	94 98 94 94 100 98	2 2 2 2 2 2 2	14 14 14 11 13	61-145 71-120 76-127 76-125 75-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits Spike Recovery: 0 out of 10 outside limits

FORM III VOA-1

3/90



**HOUSTON LABORATORY** 8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

page

1

# SPL Blank QC Report

Matrix: Aqueous Sample ID: VLBLK Batch: L951029104642 Reported on: 11/01/95 17:14 Analyzed on: 10/29/95 08:43 Analyst: JC

### METHOD 8240/624 L302B01

		Detection	
Compound	Result	Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
Acetone	ND	100	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
Carbon Disulfide	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	. 5	ug/L
Carbon Tetrachloride	ND		ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	II .	ug/L
Bromodichloromethane	ND	11	ug/L
2-Chloroethylvinylether	ND		ug/L
4-Methyl-2-Pentanone	ND	El	ug/L
cis-1,3-Dichloropropene	ND	11	ug/L
trans-1,3-Dichloropropene	ND		ug/L
Toluene	ND	11	ug/L
1,1,2-Trichloroethane	ND	11	ug/L
2-Hexanone	ND	11	11 - 11
Dibromochloromethane	∥ ND	11	ug/L
Tetrachloroethene	ND		ug/L
Chlorobenzene	ND		
Xylene (Total)	ND		
Ethylbenzene	ND		ug/L
Bromoform	∥ ир	∬ 5	ug/L
Notos			•

Notes

ND - Not detected.



#### **HOUSTON LABORATORY**

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

page

# SPL Blank QC Report

Matrix: Aqueous Sample ID: VLBLK

Batch: L951029104642

Reported on: 11/01/95 17: 4 Analyzed on: 10/29/95 08:43 Analyst: JC

# METHOD 8240/624 L302B01

Compound	Result	Detection Limit	
Styrene	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	96 99 92	88-110	<pre>% Recovery % Recovery % Recovery</pre>

**Samples in Batch** 9510C10-01 9510C10-02 <u>Notes</u>

ND - Not detected.

Pata File: /chem/l.i/l951029.b/l302b01.d

Report Date: 29-Oct-1995 08:48

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/l951029.b/l302b01.d

Lab Smp Id: VLBLK

Inj Date : 29-OCT-1995 08:43

: JC Operator

Inst ID: 1.i

Smp Info : VLBLK-8240W/1X Misc Info : L302W1//L302CC1

Comment

Method : /chem/l.i/1951029.b/lvoclpw.m

Meth Date : 29-Oct-1995 08:47 jimmy

Quant Type: ISTD Cal Date : 29-OCT-1995 07:49 Cal File: 1302cc1.d

Als bottle: 4

pil Factor: 1.000 ntegrator: HP RTE

Compound Sublist: all.sub Target Version: 3.10

							CC	NCENTRA	TIONS
		QUANT SIG					011-0	OLUMN	FINAL
pmpound	is	MASS	RT	EXP RT	REL RT	RESPONSE	(	ng)	( ug/L)
-=====		====	==	=====	=====	*======	===	====	*=====
23 32	comochloromethane	128.00	4.916	4.921	(1.000)	46160		250	
\$ 26 1,	2-Dichloroethane-d4	102.00	5.700	5.706	(1.150)	16967		240	48
32 1,	4-Difluorobenzene	114.00	6.636		(1.000)	199191		250	40
43 To	luene-d3	98.00	8.874		(0.820)	210177		250	50
• 50 Ch	lorobenzene-d5	117.00	10.826		(1.000)	163738		250	50
S 61 Br	omofluorobenzene	95.00	12.502		(1.155)	74923		230	46

Data File: /chem/l.i/1951029.b/l302b01.d

Report Date: 29-Oct-1995 08:48

Page 3

# SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1302b01.d

Lab Smp Id: VLBLK Analysis Type: VOA Quant Type: ISTD

Operator: JC

Method File: /chem/l.i/1951029.b/lvoclpw.m Misc Info: L302W1//L302CC1

Calibration Date: 10/29/95 Calibration Time: 0749

Level: LOW

Sample Type: WATER

23 Bromochloromethane 48718 24359 97436 46160 -5.25 32 1,4-Difluorobenzene 216810 108405 433620 199191 -8.13						
	23 Bromochloromethane 32 1,4-Difluorobenzene	48718 216810	LOWER ======= 24359 108405	UPPER ======== 97436 433620	46160 199191	] 3.23

23 Bromochloromethane 4.92 4.42 5.42 4.92 -0. 50 Chlorobenzene d5 10.83 10.22 7.14 6.64 -0.	STANDARD LOWER UPPER SAMPLE ====================================	% DIFF ====== -0.11 -0.08 -0.05

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

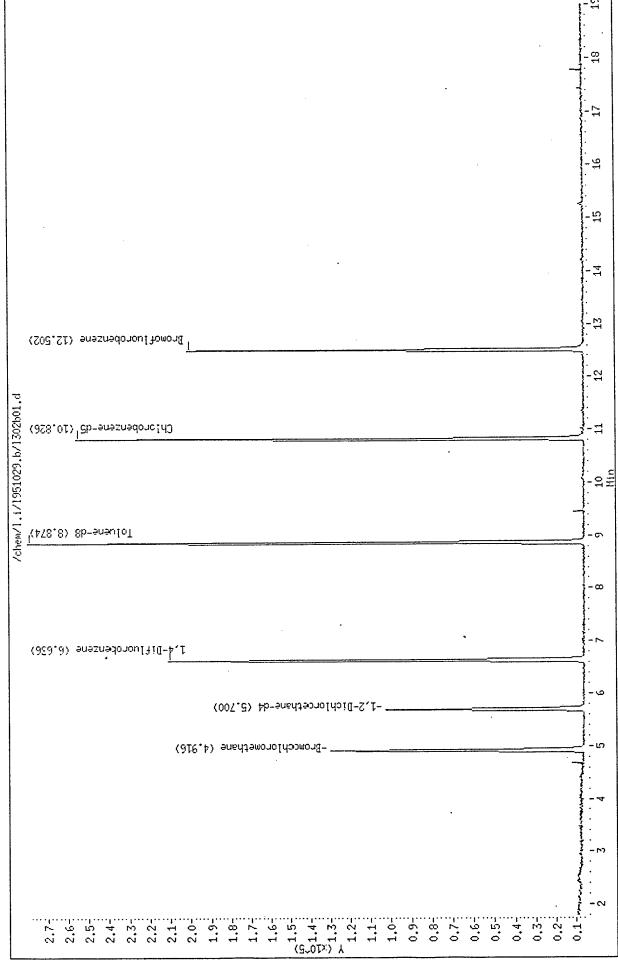
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/l.i/1951029.b/l302b01.d Date: 29-OCT-1995 08:43 Client ID: Sample Info: VLELK-8240U/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0.25u df

Instrument: 1.i

0.25 Operator: JC Column diameter:



Data File: /chem/l.i/1951029.b/1302bf1.d

Date: 29-0CT-95 07:34

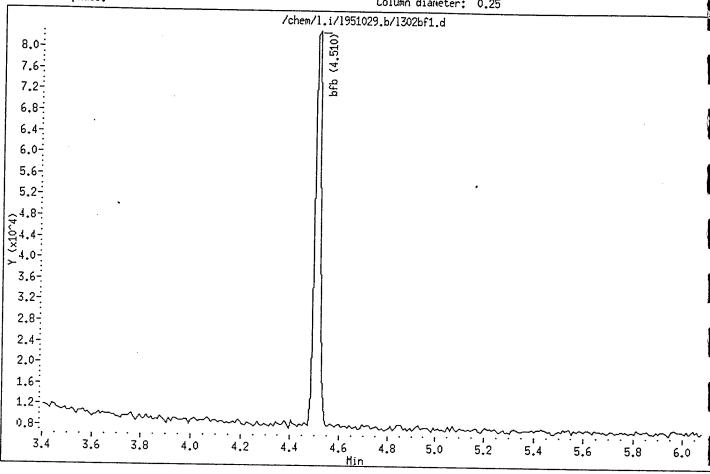
Client ID:

Sample Info: 50 NG BFB

Instrument: 1.i

Operator: JC

Column phase: Column diameter: 0.25



Page 1

Data File: /chem/l.i/1951029.b/1302bf1.d

Date: 29-0CT-95 07:34

Client ID:

Instrument: 1.i

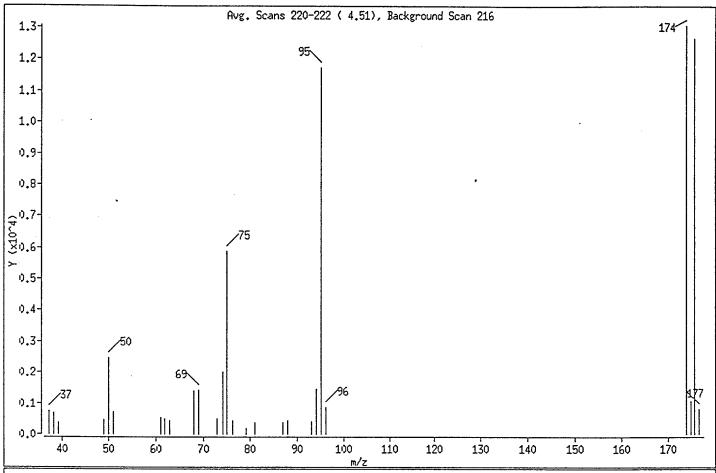
Sample Info: 50 NG BFB

Operator: JC

Column phase:

Column diameter: 0.25

1 bfb



m/e	m/e ION ABUNDANCE CRITERIA		≉ RELATIVE     ABUNDANCE		
		I			
95	Base Peak, 100% relative abundance	1	100.00	1	
I 50 I	15.00 - 40.00% of mass 95	1	20.97	- 1	
l 75	30.00 - 60.00% of mass 95	1	50.03	1	
l 96 l	5.00 - 9.00% of mass 95	1	7.28	1	
173	Less than 2.00% of mass 174	1	0.00 ( 0.00	) [	
174	50.00 - 120.00% of mass 95	!	111.22	1	
175	5.00 - 9.00% of mass 174	ı	8.98 ( 8.08	)	
176	95.00 - 101.00% of mass 174	1	107.83 ( 96.95	)	
177	5.00 - 9.00% of mass 176	1	6.97 ( 6.46	) 1	

Data File: /chem/l.i/1951029.b/1302bf1.d

Date: 29-0CT-95 07:34

Client ID:

Instrument: 1.i

Sample Info: 50 NG BFB

Operator: JC

Column phase:

Column diameter: 0.25

Data File: 1302bf1.d

Spectrum: Avg. Scans 220-222 ( 4.51), Background Scan 216

Largest m/z: 174.00 Number of peaks: 27

	m/z	Y		m/z	Y		m/z	Y	m/z	Y
I	37.05	730	I	61.95	492	ı	76.15	421	1 95.05	11743 I
1	38,05 39,05	666 382	-	62.95 68.00	436 1394	•	79.05 80.95	359	1 96.05 1 174.00	855 I 13061 I
1	49.00 50.00	462 2462			1409 479	-	87.00 87.90		1 175.05 1 175.95	1055 I 12662 I
+-	 51.10	715		74.15	2006		93.00		+ I 176.95	818 I
i	61.05	518	l	75.05	5875	-	94.05	1456		1

Data File: /chem/l.i/1951031.b/1304bf1.d

Date: 31-0CT-95 08:02

Client ID:

Instrument: 1.i

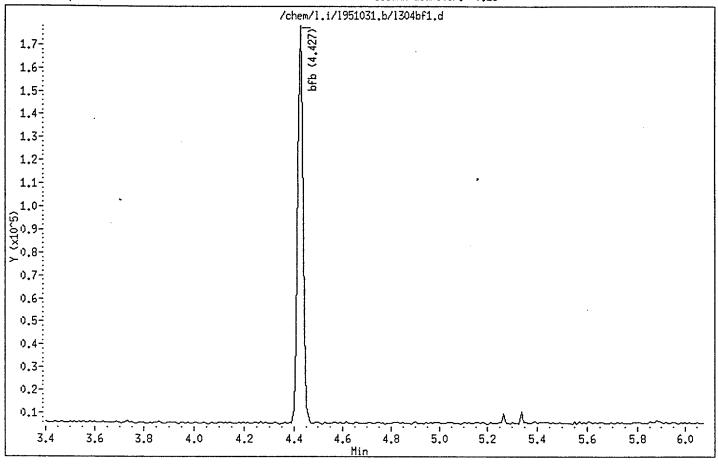
Sample Info: 50 NG BFB

Operator: JC

Column phase:

Column diameter: 0.25

Page 1



Data File: /chem/l.i/1951031.b/1304bf1.d

Date: 31-0CT-95 08:02

Client ID:

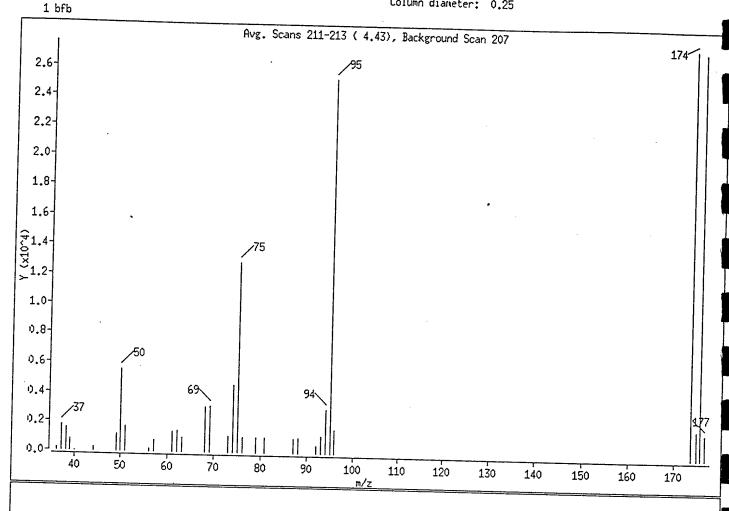
Column phase:

Sample Info: 50 NG BFB

Instrument: 1.i

Operator: JC

Column diameter: 0.25



m/e ION ABUNDANCE CRITERIA	Z RELATIVE ABUNDANCE	
	100.00	

Data File: /chem/l.i/1951031.b/1304bf1.d

Date: 31-0CT-95 08:02

Client ID:

Sample Info: 50 NG BFB

Instrument: 1.i

Operator: JC

Column phase:

Column diameter: 0.25

Data File: 1304bf1.d

Spectrum : Avg. Scans 211-213 ( 4.43), Background Scan 207

Largest m/z: 173.90 Number of peaks: 33

+-	m/z	Y 	m/z	Υ	m/z	Y	m/z	γ
	36.05 37.05 38.05 39.05 40.05	186   1768   1585   815   1	56.05 57.15 61.05 62.05 63.05	205   802   1347   1434   965	75.05 76.15 78.95 80.95 87.00	1016	95.05 96.05 173.90 175.05 175.95	25240   1614   27608   1989   27416
 	44.10 49.10 50.00 51.00	244   1191   5522   1709	68.10 69.10 73.00 74.05	3099   3122   1090   4574	88.10 92.00 93.10 94.05	1023   497   1190   3015	176.95	1693         

#### SPL Labs

#### INITIAL CALIBRATION DATA

Start Cal Date : 13-OCT-1995 14:48 End Cal Date : 13-OCT-1995 16:05

Quant Method : ISTD |
Origin : Included |
Target Version : 3.10 |
Integrator : HP RTE

Integrator : HP RTE
Method file : /chem/l.i/1951013.b/lvoclpw.m

Cal Date : 13-Oct-1995 17:24 jimmy

Curve Type : Average

#### Calibration File Names:

Level 1: /chem/l.i/1951013.b/l286iw1.d Level 2: /chem/l.i/1951013.b/l286iw2.d Level 3: /chem/l.i/1951013.b/l286iw3.d Level 4: /chem/l.i/1951013.b/l286iw4.d Level 5: /chem/l.i/1951013.b/l286iw5.d

	50	100	250	500	1000	1	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	rrf	% RSD
*************	=   =======						
1 Chloromethane	1.96841		,	'	1.59621	1.83860	
2 Vinyl Chloride	1.81509		'		1.55874	1.76056	
3 Bromomethane	1.62639		•		•	1.53108	
4 Chloroethane	1.06838	1.14081	•	'	•	•	
7 Trichlorofluoromethane	1.91219		•			2.07998	
8 Acetone	0.11408	0.33727	0.29576		•		
11 1,1-Dichloroethene	1.37913	1.55185	1.41084	1.43399	1.39527		
13 Methylene Chloride	1.71788	1.86256	1.68137	1.69652	1.65629		
14 Carbon Disulfide	3.15476	3.59400	3.32399	3.94957	4.10212	3.62489	11.0
15 trans-1,2-Dichloroethene	1.52336	1.64300	1.50284	1.53914	1.47958	1.53758	4.0
17 1,1-Dichloroethane	2.72851	2.96000	2.75964	2.81936	2.78067	2.80964	3.2
18 1,2-Dichloroethene (total)	1.62849	1.72912	1.61777	1.64884	1.61824	1.64849	2.8
19 Vinyl Acetate	4.58050	4.46521	4.68674	4.22706	4.22555	4.43701	4.6
20 2-Butanone	2.08811	2.14834	1.92439	1.88293	1.84861	1.97848	6.6
21 cis-1,2-Dichloroethene	1.73362	1.81524	1.73269	1.75854	1.75690	1.75940	1.9
24 Chloroform	3.03956	3.24685	3.03493	3.08839	3.06075	3.09410	2.8
27 1,1,1-Trichloroethane	0.46856	0.50504	0.47379	0.49321	0.47318	0.48276	3.2
28 1,2-Dichloroethane	2.42615	2.71714	2.52861	2.62057	2.59443	2.57738	4.2
30 Benzene	1.31177	1.41962	1.37258	1.38846	1.30502	1.35949	3.6
31 Carbon Tetrachloride	0.39813	0.44107	0.42093	0.42898	0.41456	0.42074	3.8
34 1,2-Dichloropropane	0.33590	0.36509	0.35041	0.36169	0.34810	0.35224	3.3
35 Trichloroethene	0.36241	0.37785	0.36425	0.38002	0.36109	0.36912	2.4
37 Bromodichloromethane	0.47930	0.51881	0.48941	0.50684	0.49142	0.49716	3.1
39 2-Chloroethylvinylether	0.18953	0.19591	0.22506	0.21991	0.22831	0.21175	8.3
40 4-Methyl-2-Pentanone	0.46053	0.49278	0.53183	0.54803	0.54968	0.51657	7.5
41 cis-1,3-Dichloropropene	0.49952	•	0.55323	0.57284	0.55433	0.54890	5.2
42 trans-1,3-Dichloropropene	0.46890	•	•	0.53592	0.51381	0.50906	4.8
in the same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same and same	1	, 	1	i	I		

Report Date : 13-Oct-1995 17:25

#### SPL Labs

## INITIAL CALIBRATION DATA

tart Cal Date : 13-OCT-1995 14:48 End Cal Date : 13-OCT-1995 16:05 Quant Method : ISTD

rigin : Included Target Version : 3.10 Integrator : HP RTE

ethod file : /chem/l.i/1951013.b/lvoclpw.m

: /chem/l.i/1951013.b/1700 : 13-Oct-1995 17:24 jimmy al Date

Curve Type : Average

44 Toluene   0.87427   1.00468   0.96449   0.97746   0.94673   0.95353   5.1   45 1,1,2-Trichloroethane   0.26120   0.28737   0.27145   0.28088   0.26946   0.27407   3.7   46 2-Hexanone   0.54283   0.59119   0.63857   0.65529   0.68545   0.62267   9.0   47 Dibromochloromethane   0.38247   0.41830   0.39051   0.40569   0.38773   0.39694   3.7   49 Tetrachloroethene   0.36677   0.41322   0.39544   0.38983   0.38032   0.38912   4.4   52 Chlorobenzene   1.03639   1.11200   1.06507   1.05816   1.03449   1.06122   2.9   53 Xylene (Total)   0.58518   0.67297   0.66996   0.66832   0.64712   0.64871   5.6   54 Ethylbenzene   0.45468   0.51470   0.52639   0.53081   0.52377   0.51007   6.1   55 m,p-Xylene(s)   0.58203   0.67586   0.67247   0.67000   0.64562   0.64920   6.0   56 Bromoform   0.34438   0.38494   0.38321   0.36803   0.36849   0.36981   4.4   57 Styrene   0.84020   1.01454   1.06634   1.08452   1.06725   1.01457   9.9   58 O-Xylene   0.59149   0.66720   0.66496   0.66496   0.65014   0.64774   4.9   59 O-Xylene   0.59149   0.66720   0.66496   0.65014   0.64774   4.9   50 (1,1,2,2-Tetrachloroethane   0.50650   0.53945   0.51819   0.51787   0.52487   0.52138   2.3   50 (1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.61   50 (1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.61   50 (1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.61   51 Bromofluorobenzene   0.46321   0.50439   0.52339   0.546331   0.57732   0.52487   0.52138   2.32   52 (1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.61   53 Bromofluorobenzene   0.46321   0.50439   0.52339   0.546331   0.57732   0.52487   0.52138   2.32   53 Chloroethane-d8   0.46321   0.50439   0.52339   0.546331   0.57732   0.52487   0.52138   2.32   53 Chloroethane-d8   0.46321   0.50439   0.52339   0.546331   0.57732   0.546331   0.52573   0.52487   0.52487   0.52239   0.546331   0.52339   0.546331   0.52339   0.546331   0.52								
Level 1   Level 2   Level 3   Level 4   Level 5   RRF   % RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI   RSI	Compound		100	250	500	1000	I .	 
0.8/427   1.00468   0.96449   0.97746   0.94673   0.95353   5.1	======================================	•			Level 4	Level 5	RRF	r RSD
0.8/427   1.00468   0.96449   0.97746   0.94673   0.95353   5.1	44 - 7	==   ======		*****			l === i	
46 2-Hexanone   0.26120   0.28737   0.27145   0.28088   0.26946   0.27407   3.7 47 Dibromochloromethane   0.54283   0.59119   0.63857   0.65529   0.68545   0.62267   9.0 49 Tetrachloroethene   0.36677   0.41322   0.39544   0.38983   0.38032   0.38912   4.4 52 Chlorobenzene   1.03639   1.11200   1.06507   1.05816   1.03449   1.06122   2.9 53 Xylene (Total)   0.58518   0.67297   0.66996   0.66832   0.64712   0.64871   5.6 54 Ethylbenzene   0.45468   0.51470   0.52639   0.53081   0.52377   0.51007   6.1 55 m,p-Xylene (s)   0.58203   0.67586   0.67247   0.67000   0.64562   0.64920   6.0 56 Bromoform   0.34438   0.38494   0.38321   0.36803   0.36849   0.36981   4.4 59 o-Xylene   0.84020   1.01454   1.06634   1.08452   1.06725   1.01457   9.96 60 1,1,2,2-Tetrachloroethane   0.50650   0.53945   0.51819   0.51787   0.52487   0.52138   2.33 61 Bromofluorobenzene   0.46321   0.50439   0.53329   0.54633   0.50575   1.33257   3.32		0.87427	1.00468	0.96449				
0.54283   0.59119   0.63857   0.65529   0.68545   0.62267   9.0		0.26120	0.28737	0.27145	0.280881	0 26046		
47 Dibromochloromethane   0.38247   0.41830   0.39051   0.40569   0.38773   0.39694   3.7 49 Tetrachloroethene   0.36677   0.41322   0.39544   0.38983   0.38032   0.38912   4.4 52 Chlorobenzene   1.03639   1.11200   1.06507   1.05816   1.03449   1.06122   2.9 53 Xylene (Total)   0.58518   0.67297   0.66996   0.66832   0.64712   0.64871   5.6 54 Ethylbenzene   0.45468   0.51470   0.52639   0.53081   0.52377   0.51007   6.1 55 Bromoform   0.34438   0.38494   0.38321   0.36803   0.36849   0.36981   4.4 57 Styrene   0.84020   1.01454   1.06634   1.08452   1.06725   1.01457   9.96 59 o-Xylene   0.59149   0.66720   0.66492   0.66496   0.65014   0.64774   4.96 60 1,1,2,2-Tetrachloroethane   0.50650   0.53945   0.51819   0.51787   0.52487   0.52138   2.33  26 1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.63 43 Toluene-d8   1.25795   1.35712   1.34484   1.37140   1.33156   1.33257   3.32 61 Bromofluorobenzene   0.46321   0.50439   0.52339   0.546321   0.50550   0.50550   0.52339   0.546321   0.50550   0.50550   0.50439   0.52339   0.546321   0.50550   0.50550   0.50439   0.52339   0.546321   0.50550   0.50550   0.50439   0.52339   0.546321   0.50550   0.50550   0.50550   0.50439   0.52339   0.546321   0.50550   0.50550   0.50439   0.52339   0.546321   0.50550   0.50550   0.50550   0.50439   0.52339   0.546321   0.50550   0.50550   0.50550   0.50439   0.52339   0.546321   0.50550   0.50550   0.50550   0.50439   0.52339   0.546321   0.50550   0.50550   0.50550   0.50439   0.52339   0.546321   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550	46 2-Hexanone	0.542831	0 591191		,			
49 Tetrachloroethene   0.3647  0.41830  0.39051  0.40569  0.38773  0.39694  3.7 52 Chlorobenzene   1.03639  1.11200  1.06507  1.05816  1.03449  1.06122  2.9 53 Xylene (Total)   0.58518  0.67297  0.66996  0.66832  0.64712  0.64871  5.6 54 Ethylbenzene   0.45468  0.51470  0.52639  0.53081  0.52377  0.51007  6.1 55 m,p-Xylene(s)   0.58203  0.67586  0.67247  0.67000  0.64562  0.64920  6.0 56 Bromoform   0.34438  0.38494  0.38321  0.36803  0.36849  0.36981  4.4 59 o-Xylene   0.84020  1.01454  1.06634  1.08452  1.06725  1.01457  9.96 60 1,1,2,2-Tetrachloroethane   0.50650  0.53945  0.51819  0.51787  0.52487  0.52138  2.31 56 1,2-Dichloroethane-d4   0.35633  0.40541  0.38035  0.38541  0.37732  0.38096  4.63 50 1,25795  1.35712  1.34484  1.37140  1.33156  1.33257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257  3.3257	47 Dibromochloromethane		•				0.62267	9.022
52 Chlorobenzene   0.36677   0.41322   0.39544   0.38983   0.38032   0.38912   4.4 53 Xylene (Total)   0.58518   0.67297   0.66996   0.66832   0.64712   0.64871   5.6 54 Ethylbenzene   0.45468   0.51470   0.52639   0.53081   0.52377   0.51007   6.1 55 m,p-Xylene(s)   0.58203   0.67586   0.67247   0.67000   0.64562   0.64920   6.0 56 Bromoform   0.34438   0.38494   0.38321   0.36803   0.36849   0.36981   4.4 59 o-Xylene   0.84020   1.01454   1.06634   1.08452   1.06725   1.01457   9.96 60 1,1,2,2-Tetrachloroethane   0.50650   0.53945   0.51819   0.51787   0.52487   0.52138   2.31 52 1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.61 61 Bromofluorobenzene   0.46321   0.50439   0.52329   0.54633   0.50550   1.33257   3.32			1		0.40569	0.38773	0.396941	3.711
1.03639   1.11200   1.06507   1.05816   1.03449   1.06122   2.9		0.36677	0.41322	0.39544	0.389831	0.380321	•	
53 Xylene (Total)   0.58518   0.67297   0.66996   0.66832   0.64712   0.64871   5.6  54 Ethylbenzene   0.45468   0.51470   0.52639   0.53081   0.52377   0.51007   6.1  55 m,p-Xylene(s)   0.58203   0.67586   0.67247   0.67000   0.64562   0.64920   6.0  56 Bromoform   0.34438   0.38494   0.38321   0.36803   0.36849   0.36981   4.4  57 Styrene   0.84020   1.01454   1.06634   1.08452   1.06725   1.01457   9.90  58 GO 1,1,2,2-Tetrachloroethane   0.59149   0.66720   0.66492   0.66496   0.65014   0.64774   4.90  59 o-Xylene   0.59149   0.50650   0.53945   0.51819   0.51787   0.52487   0.52138   2.31  50 1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.61  59 Total Control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control		1.03639	1.11200	1.065071	•			
54 Ethylbenzene   0.45468   0.51470   0.52639   0.53081   0.52377   0.51007   6.1   55 m,p-Xylene(s)   0.58203   0.67586   0.67247   0.67000   0.64562   0.64920   6.0   56 Bromoform   0.34438   0.38494   0.38321   0.36803   0.36849   0.36981   4.4   57 Styrene   0.84020   1.01454   1.06634   1.08452   1.06725   1.01457   9.90   58 O-Xylene   0.59149   0.66720   0.66492   0.66496   0.65014   0.64774   4.90   59 O-Xylene   0.59149   0.59149   0.59149   0.51819   0.51787   0.52487   0.52138   2.31   26 1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.61   43 Toluene-d8   1.25795   1.35712   1.34484   1.37140   1.33156   1.33257   3.32   61 Bromofluorobenzene   0.46321   0.50439   0.52329   0.54632   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.50550   0.5	53 Xylene (Total)	1 0.585191						2.955
55 m,p-Xylene(s)   0.5348  0.51470  0.52639  0.53081  0.52377  0.51007  6.1  56 Bromoform   0.34438  0.38494  0.38321  0.36803  0.36849  0.36981  4.4  57 Styrene   0.84020  1.01454  1.06634  1.08452  1.06725  1.01457  9.96  59 o-Xylene   0.59149  0.66720  0.66492  0.66496  0.65014  0.64774  4.96  60 1,1,2,2-Tetrachloroethane   0.50650  0.53945  0.51819  0.51787  0.52487  0.52138  2.333333333333333333333333333333333333	54 Ethylbenzene		,			0.64712	0.64871	5.697
56 Bromoform   0.58203   0.67586   0.67247   0.67000   0.64562   0.64920   6.0  57 Styrene   0.84020   1.01454   1.06634   1.08452   1.06725   1.01457   9.96  59 o-Xylene   0.59149   0.66720   0.66492   0.66496   0.65014   0.64774   4.96  60 1,1,2,2-Tetrachloroethane   0.50650   0.53945   0.51819   0.51787   0.52487   0.52138   2.33  26 1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.63  43 Toluene-d8   1.25795   1.35712   1.34484   1.37140   1.33156   1.33257   3.32  61 Bromofluorobenzene   0.46321   0.50439   0.52339   0.54633   0.50550   0.50550   0.52350   0.50550   0.52350   0.50550   0.52350   0.50550   0.52350   0.50550   0.52350   0.50550   0.52350   0.50550   0.52350   0.50550   0.52350   0.50550   0.52350   0.50550   0.52350   0.50550   0.52350   0.50550   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0.52350   0		0.45468	0.51470	0.52639	0.53081	0.52377	0.51007	
0.34438   0.38494   0.38321   0.36803   0.36849   0.36981   4.48   57 Styrene		0.58203	0.67586	0.672471	0.670001	0 645631		
57 Styrene   0.84020  1.01454  1.06634  1.08452  1.06725  1.01457  9.96 59 o-Xylene   0.59149  0.66720  0.66492  0.66496  0.65014  0.64774  4.96 60 1,1,2,2-Tetrachloroethane   0.50650  0.53945  0.51819  0.51787  0.52487  0.52138  2.33 26 1,2-Dichloroethane-d4   0.35633  0.40541  0.38035  0.38541  0.37732  0.38096  4.63 43 Toluene-d8   1.25795  1.35712  1.34484  1.37140  1.33156  1.33257  3.32 61 Bromofluorobenzene   0.46321  0.50439  0.52329  0.54633  0.53750  0.53750  3.3257	56 Bromoform	0.344381	-			1	,	
59 o-Xylene   0.59149   0.66720   0.66492   0.66496   0.65014   0.64774   4.96   0.59149   0.50650   0.53945   0.51819   0.51787   0.52487   0.52138   2.33   0.40541   0.38035   0.38541   0.37732   0.38096   4.61   43 Toluene-d8   1.25795   1.35712   1.34484   1.37140   1.33156   1.33257   3.32   61 Bromofluorobenzene   0.46321   0.50439   0.52339   0.54633   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52550   0.52	57 Styrene			,		0.36849	0.36981	4.402
0.59149   0.66720   0.66492   0.66496   0.65014   0.64774   4.96   0.60	59 O-Yuleno		1.01454	1.06634	1.08452	1.06725	1.01457	9.949
0.50650   0.53945   0.51819   0.51787   0.52487   0.52138   2.33 26 1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.63 43 Toluene-d8   1.25795   1.35712   1.34484   1.37140   1.33156   1.33257   3.32 61 Bromofluorobenzene   0.46321   0.50439   0.52329   0.54633   0.52329   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0.52529   0		0.59149	0.66720	0.66492	0.664961	0.650141	· ·	
26 1,2-Dichloroethane-d4   0.35633   0.40541   0.38035   0.38541   0.37732   0.38096   4.61   43 Toluene-d8   1.25795   1.35712   1.34484   1.37140   1.33156   1.33257   3.32   61 Bromofluorobenzene   0.46321   0.50439   0.52329   0.54633   0.52329   0.52633   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.52632   0.526	60 1,1,2,2-Tetrachloroethane	0.506501	0.539451	•	,	'		4.967
43 Toluene-d8   1.25795   1.35712   1.34484   1.37140   1.33156   1.33257   3.32   0.46321   0.50439   0.52329   0.54632   0.52750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.375	***********************		********	0.51619	0.51787]	0.52487	0.52138	2.314
43 Toluene-d8   1.25795   1.35712   1.34484   1.37140   1.33156   1.33257   3.32   61 Bromofluorobenzene   0.46321   0.50439   0.52329   0.54632   0.52750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750   2.3750	26 1.2-Dichloroothans	• • • • • • • • • • • • • • • • • • • •				=========	*=======	
43 Toluene-d8   1.25795   1.35712   1.34484   1.37140   1.33156   1.33257   3.32   61 Bromofluorobenzene   0.46321   0.50439   0.52329   0.54632   0.53752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752   2.3752		0.35633	0.40541	0.38035	0.38541	0.377321	0 300001	
61 Bromofluorobenzene   0.46321   0.50439   0.52329   0.54632   0.53550   2.33257   3.32	43 Toluene-d8	1.257951	1.35712	1 344941	•	•	•	4.617
1 0.40321 0.50439 0.52329 0.54633 0.53653 0.53653	61 Bromofluorobenzene		•	•		1.33156	1.33257	3.320
		1 0.40321	0.50439]	0.52329	0.54633	0.53759	0.51496	6.408
		_  _			1	i	i	37.200

Data File: /chem/l.i/1951013.b/l286iw1.d

Report Date: 13-Oct-1995 16:42

#### SPL Labs

Volatiles by 624/8240

- Inst ID: l.i

Data file : /chem/l.i/1951013.b/l286iw1.d

Lab Smp Id: VSTD010

Inj Date : 13-OCT-1995 14:48

Operator : JC

Smp Info : VSTD010-8240W/1X
Misc Info : L286W1//L286IW3

Comment :

Method : /chem/l.i/1951013.b/lvoclpw.m

Meth Date: 13-Oct-1995 16:42 jimmy Quant Type: ISTD

Cal Date : 13-OCT-1995 14:22 Cal File: 1286iw3.d

Als bottle: 4 Calibration Sample, Level: 1

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

						AMOUN	TS
		QUANT SIG				CAL-AMT	ON-COL
Co	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
==		====	==	*****		======	*****
	1 Chloromethane	50.00	1.660	1.660 (0.336)	19257	50	54
	2 Vinyl Chloride	62.00	1.767	1.767 (0.358)	17757	50	52
	3 Bromomethane	94.00	1.981	1.981 (0.401)	15911	50	53
	4 Chloroethane	64.00	2.044	2.044 (0.414)	10452	50	50
	7 Trichlorofluoromethane	101.00	2.391	2.391 (0.484)	18707	50	46
	8 Acetone	58.00	2.427	2.427 (0.491)	1116	50	22
	11 1,1-Dichloroethene	96.00	2.810	2.810 (0.569)	13492	50	48
	13 Methylene Chloride	84.00	3.024	3.024 (0.612)	16806	50	50
М	18 1,2-Dichloroethene (total)	96.00			31863	100	99
	14 Carbon Disulfide	76.00	3.158	3.158 (0.639)	30863	50	44
	15 trans-1,2-Dichloroethene	96.00	3.586	3.586 (0.726)	14903	50	50
	17 1,1-Dichloroethane	63.00	3.889	3.889 (0.787)	26693	50	48
	19 Vinyl Acetate	43.00	3.978	3.978 (0.805)	44811	50	52
	20 2-Butanone	43.00	4.361	4.361 (0.883)	20428	50	53
	21 cis-1,2-Dichloroethene	96.00	4.682	4.682 (0.948)	16960	50	49
	24 Chloroform	83.00	4.959	4.959 (1.004)	29736	50	49
	27 1,1,1-Trichloroethane	97.00	5.752	5.752 (0.864)	20764	50	48
	28 1,2-Dichloroethane	62.00	5.832	5.832 (1.180)	23735	50	47
	30 Benzene	78.00	6.198	6.198 (0.930)	58130	50	48
	31 Carbon Tetrachloride	117.00	6.215	6.215 (0.933)	17643	50	47
	34 1,2-Dichloropropane	63.00	7.187	7.187 (1.079)	14885	50	48
	35 Trichloroethene	130.00	7.223	7.223 (1.084)	16060	50	49
	37 Bromodichloromethane	83.00	7.410	7.410 (1.112)	21240	50	48
	39 2-Chloroethylvinylether	63.00	8.025	8.025 (1.205)	8399	50	45
	40 4-Methyl-2-Pentanone	43.00	8.266	8.266 (1.241)	20408	50	44
	41 cis-1,3-Dichloropropene	75.00	8.283	8.283 (1.244)	22136	50	46
	42 trans-1,3-Dichloropropene	75.00	8.907	8.907 (1.337)	20779	50	46
	44 Toluene	92.00	8.988	8.988 (0.829)	31746	50	46
	45 1,1,2-Trichloroethane	83.00	9.077	9.077 (1.363)	11575	50	48

Data File: /chem/l.i/1951013.b/1286iw1.d Report Date: 13-Oct-1995 16:42

		QUANT SIG				AMOUN	TS
	ompounds					CAL-AMT	ON-COL
7.5		MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
	46 2-Hexanone	***	==	医克里克里奇 的复数医生活	*****	=======	*******
	·	43.00	9.469	9.469 (0.873)	19711	50	
	47 Dibromochloromethane	129.00	9.701		16949		44
·,	49 Tetrachloroethene	164.00	10.048		13318	50	48
_	52 Chlorobenzene	112.00	10.895		-	50	47
1	53 Xylene (Total)	106.00		10.005 (1.005)	37633	50	49
	54 Ethylbenzene	106.00	11 100		63747	150	140
	55 m,p-Xylene(s)	106.00	11.198	11.198 (1.033)	16510	50	44
	56 Bromoform		11.359	11.359 (1.048)	42269	100	90
	57 Styrene	173.00	11.778	11.778 (1.086)	12505	50	46
	59 o-Xylene	104.00	11.831	11.831 (1.091)	30509	50	41
		106.00	11.885	11.885 (1.096)	21478	50	46
	60 1,1,2,2-Tetrachloroethane	83.00	12.232	12.232 (1.128)	18392	50	48
	23 Bromochloromethane	128.00	4.941	4.941 (1.000)	48915	250	4.6
<u></u>	32 1,4-Difluorobenzene	114.00	6.661	6.661 (1.000)	221571		
*	50 Chlorobenzene-d5	117.00	10.842	10.842 (1.000)		<b>2</b> 50	
	26 1,2-Dichloroethane-d4	102.00	5.716	5.716 (1.157)	181558	250	
	43 Toluene-d8	98.00	8.890		3486	50	47
\$	61 Bromofluorobenzene	95.00		8.890 (0.820)	45678	50	47
~		25.00	12.518	12.518 (1.155)	16820	50	45
	1						

Data File: /chem/l.i/1951013.b/1286iw1.d

Report Date: 13-Oct-1995 16:39

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1286iw1.d Lab Smp Id: VSTD010

Analysis Type: VOA

Quant Type: ISTD Operator: JC

Method File: /chem/l.i/1951013.b/lvoclpw.m

Misc Info: L286W1//L286IW3

Calibration Date: 10/13/95 Calibration Time: 1422

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	49097	24548	98194	48915	-0.37
	224829	112414	449658	221571	-1.45
	183244	91622	366488	181558	-0.92

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	4.93 6.65 10.84	4.43 6.15 10.34	5.43 7.15 11.34	4.94 6.66 10.84	

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/l.i/1951013.b/1286iw2.d

Report Date: 13-Oct-1995 16:42

#### SPL Labs

Volatiles by 624/8240

Inst ID: 1.i

Data file : /chem/l.i/l951013.b/l286iw2.d

Lab Smp Id: VSTD020

Inj Date : 13-OCT-1995 15:13

Operator : JC

Smp Info : VSTD020-8240W/1X Misc Info : L286W1//L286IW3

Comment

: /chem/1.i/1951013.b/lvoclpw.m Method

Meth Date : 13-Oct-1995 16:42 jimmy

Quant Type: ISTD Cal Date : 13-OCT-1995 14:22 Cal File: 1286iw3.d

Als bottle: 5 Calibration Sample, Level: 2 Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

						AMOUN	TS ·
~	**************************************	QUANT SIG				CAL-AMT	ON-COL
C	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
=:	*************	**=	==	******* <b>*</b> *****	======	*=====	========
	1 Chloromethane	50.00	1.662	1.662 (0.336)	36501	100	110
	2 Vinyl Chloride	62.00	1.769	1.769 (0.358)	34589	100	110
	3 Bromomethane	94.00	1.983	1.983 (0.401)	30116	100	110
	4 Chloroethane	64.00	2.036	2.036 (0.412)	20227	100	110
	7 Trichlorofluoromethane	101.00	2.393	2.393 (0.484)	37063	100	100
	8 Acetone	58.00	2.429	2.429 (0.491)	5980	100	130
	11 1,1-Dichloroethene	96.00	2.803	2.803 (0.567)	27515	100	110
	13 Methylene Chloride	84.00	3.026	3.026 (0.612)	33024	100	110
M	/ Dishibitototthene (total)	96.00			61316	200	210
	14 Carbon Disulfide	76.00	3.159	3.159 (0.639)	63723	100	99
	15 trans-1,2-Dichloroethene	96.00	3.578	3.578 (0.724)	29131	100	110
	17 1,1-Dichloroethane	63.00	3.882	3.882 (0.785)	52482	100	100
	19 Vinyl Acetate	43.00	3.980	3.980 (0.805)	79170	100	100
	20 2-Butanone	43.00	4.354	4.354 (0.881)	38091	100	110
	21 cis-1,2-Dichloroethene	96.00	4.684	4.684 (0.948)	32185	100	100
	24 Chloroform	83.00	4.960	4.960 (1.004)	57568	100	100
	27 1,1,1-Trichloroethane	97.00	5.753	5.753 (0.864)	41099	100	100
	28 1,2-Dichloroethane	62.00	5.834	5.834 (1.180)	48176	100	100
	30 Benzene	78.00	6.199	6.199 (0.930)	115525	100	100
	31 Carbon Tetrachloride	117.00	6.217	6.217 (0.933)	35893	100	100
	34 1,2-Dichloropropane	63.00	7.189	7.189 (1.079)	29710	100	100
	35 Trichloroethene	130.00	7.224	7.224 (1.084)	30748	100	100
	37 Bromodichloromethane	83.00	7.411	7.411 (1.112)	42219	100	100
	39 2-Chloroethylvinylether	63.00	8.026	8.026 (1.205)	15943	100	92
	40 4-Methyl-2-Pentanone	43.00	8.267	8.267 (1.241)	40101	100	95
	41 cis-1,3-Dichloropropene	75.00	8.285	8.285 (1.243)	45944	100	100
	42 trans-1,3-Dichloropropene	75.00	8.909	8.909 (1.337)	41924	100	100
	44 Toluene	92.00	8.989	8.989 (0.829)	66658	100	100
	45 1,1,2-Trichloroethane	83.00	9.078	9.078 (1.363)	23385	100	
			21070	3.070 (1.363)	23385	100	100

Data File: /chem/l.i/1951013.b/l286iw2.d Report Date: 13-Oct-1995 16:42

۷.							AMOUN'	rs
		QUANT SIG					CAL-AMT	ON-COL
po	unds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ng)
=====	****	<b>西里</b> 英	==		=====	*****	*=====	======
46	2-Hexanone	43.00	9.471	9.471	(0.873)	39224	100	95
47	Dibromochloromethane	129.00	9.702	9.702	(1.456)	34040	100	100
49	Tetrachloroethene	164.00	10.050	10.050	(0.927)	27416	100	110
52	Chlorobenzene	112.00	10.897	10.897	(1.005)	73778	100	100
1 53	Xylene (Total)	106.00				133950	300	310
54	Ethylbenzene	106.00	11.200	11.200	(1.033)	34149	100	100
55	m,p-Xylene(s)	106.00	11.360	11.360	(1.048)	89683	200	210
56	Bromoform	173.00	11.770	11.770	(1.085)	25540	100	100
57	Styrene	104.00	11.833	11.833	(1.091)	67312	100	100
59	o-Xylene	106.00	11.886	11.886	(1.096)	44267	100	100
60	1,1,2,2-Tetrachloroethane	83.00	12.234	12.234	(1.128)	35791	100	100
23	Bromochloromethane	128.00	4.942	4.942	(1.000)	44326	250	
* 32	1,4-Difluorobenzene	114.00	6.663	6.663	(1.000)	203443	250	
<u>*</u> 50	Chlorobenzene-d5	117.00	10.843	10.843	(1.000)	165868	250	
26	1,2-Dichloroethane-d4	102.00	5.718	5.718	(1.157)	7188	100	110
43	Toluene-d8	98.00	8.891	8.891	(0.820)	90041	100	100
\$ 61	Bromofluorobenzene	95.00	12.519	12.519	(1.155)	33465	100	98

Data File: /chem/l.i/1951013.b/1286iw2.d

Report Date: 13-Oct-1995 16:40

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Calibration Date: 10/13/95 Calibration Time: 1422

Lab File ID: 1286iw2.d Lab Smp Id: VSTD020 Analysis Type: VOA Quant Type: ISTD

Level: LOW

Sample Type: WATER

Operator: JC
Method File: /chem/l.i/1951013.b/lvoclpw.m
Misc Info: L286W1//L286IW3

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
23 Bromochloromethane	49097	24548	98194	44326	-9.72
32 1,4-Difluorobenzene	224829	112414	449658	203443	-9.51
50 Chlorobenzene-d5	183244	91622	366488	165868	-9.48
		,			

		RT LIMIT					
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF		
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	4.93 6.65 10.84	4.43 6.15 10.34	5.43 7.15 11.34	4.94 6.66 10.84	0.23 0.17 0.02		

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

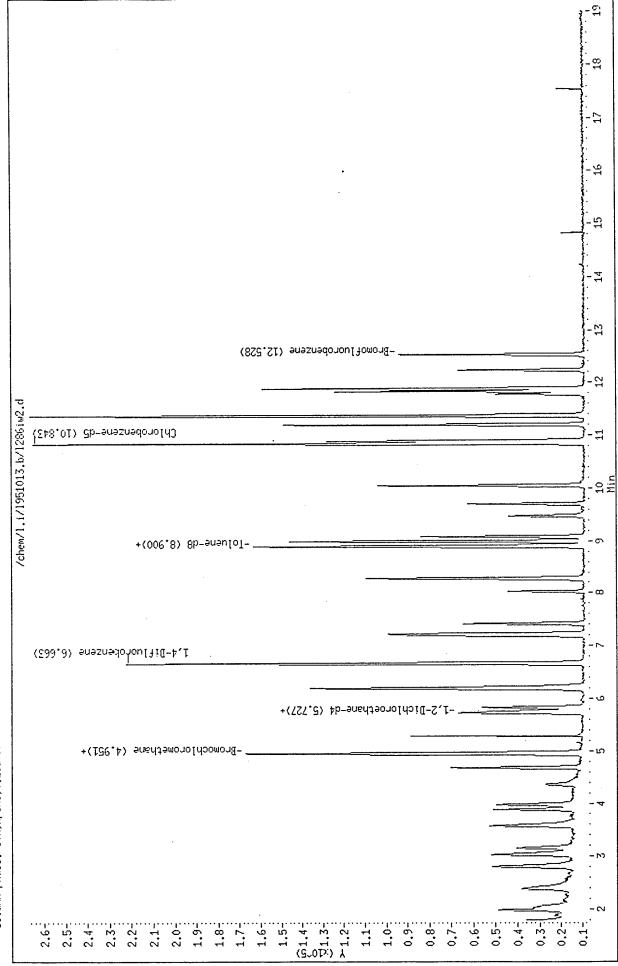
RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/l.i/1951013.b/1286iw2.d Date : 13-DCT-1995 15:13

Client ID: Sample Info: VSTD020-8240W/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0,25u df

Instrument: 1.i

0.25 Operator: JC Column diameter:



Data File: /chem/l.i/1951013.b/1286iw3.d

Report Date: 13-Oct-1995 16:43

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951013.b/1286iw3.d

Lab Smp Id: VSTD050

Inj Date : 13-OCT-1995 14:22

Operator : JC Inst ID: l.i

Smp Info : VSTD050-8240W/1X
Misc Info : L286W1//L286IW3

Comment :

Method : /chem/l.i/l951013.b/lvoclpw.m

Meth Date: 13-Oct-1995 16:43 jimmy Quant Type: ISTD Cal Date: 13-OCT-1995 14:22 Cal File: 1286iw3.d

Als bottle: 3 Calibration Sample, Level: 3

Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					AMOUN	TS
	QUANT SIG				CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
*********************	====	==	EDECOT 832255	*======		======
1 Chloromethane	50.00	1.668	1.668 (0.338)	87893	250	240
2 Vinyl Chloride	62.00	1.775	1.775 (0.360)	86002	250	250
3 Bromomethane	94.00	1.980	1.980 (0.402)	72631	250	240
4 Chloroethane	64.00	2.043	2.043 (0.414)	53265	250	260
7 Trichlorofluoromethane	101.00	2.390	2.390 (0.485)	104655	250	260
8 Acetone	58.00	2.426	2.426 (0.492)	14521	250	290
11 1,1-Dichloroethene	96.00	2.800	2.800 (0.568)	69268	250	240
13 Methylene Chloride	84.00	3.023	3.023 (0.613)	82550	250	240
M 18 1,2-Dichloroethene (total)	96.00			158855	500	490
14 Carbon Disulfide	76.00	3.148	3.148 (0.638)	163198	250	230
15 trans-1,2-Dichloroethene	96.00	3.576	3.576 (0.725)	73785	250	240
17 1,1-Dichloroethane	63.00	3.870	3.870 (0.785)	135490	250	240
19 Vinyl Acetate	43.00	3.968	3.968 (0.805)	230105	250	260
20 2-Butanone	43.00	4.342	4.342 (0.881)	94482	250	240
21 cis-1,2-Dichloroethene	96.00	4.672	4.672 (0.948)	85070	250	250
24 Chloroform	83.00	4.949	4.949 (1.004)	149006	250	240
27 1,1,1-Trichloroethane	97.00	5.742	5.742 (0.863)	106521	250	240
28 1,2-Dichloroethane	62.00	5.822	5.822 (1.181)	124147	250	240
30 Benzene	78.00	6.188	6.188 (0.930)	308595	250	250
31 Carbon Tetrachloride	117.00	6.214	6.214 (0.934)	94638	250	250
34 1,2-Dichloropropane	63.00	7.177	7.177 (1.079)	78783	250	250
35 Trichloroethene	130.00	7.213	7.213 (1.084)	81895	250	250
37 Bromodichloromethane	83.00	7.400	7.400 (1.113)	110033	250	250
39 2-Chloroethylvinylether	63.00	8.015	8.015 (1.205)	50601	250	260
40 4-Methyl-2-Pentanone	43.00	8.256	8.256 (1.241)	119570	250	260
41 cis-1,3-Dichloropropene	75.00	8.273	8.273 (1.244)	124383	250	250
42 trans-1,3-Dichloropropene	75.00	8.906	8.906 (1.339)	114997	250	250
44 Toluene	92.00	8.987	8.987 (0.829)	176737	250	250
45 1,1,2-Trichloroethane	83.00	9.076	9.076 (1.365)	61030	250	250

Data File: /chem/l.i/1951013.b/l286iw3.d

eport Date: 13-Oct-1995 16:43

نــ								NUOMA	TS
			QUANT SIG					CAL-AMT	ON-COL
2	mpo	unds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ng)
==			****		*====	=====	**=====	****	**=====
Ì	46	2-Hexanone	43.00	9.459	9.459	(0.873)	117014	250	260
	47	Dibromochloromethane	129.00	9.700	9.700	(1.458)	87798	250	240
	49	Tetrachloroethene	164.00	10.047	10.047	(0.927)	72462	250	250
À	52	Chlorobenzene	112.00	10.885	10.885	(1.004)	195167	250	250
	53	Xylene (Total)	106.00				368296	750	770
-	54	Ethylbenzene	106.00	11.197	11.197	(1.033)	96457	250	260
	55	m,p-Xylene(s)	106.00	11.358	11.358	(1.048)	246454	500	520
	56	Bromoform	173.00	11.768	11.768	(1.085)	70221	250	260
Ĺ	57	Styrene	104.00	11.821	11.821	(1.090)	195400	250	260
	59	o-Xylene	106.00	11.884	11.884	(1.096)	121842	250	260
Ħ	60	1,1,2,2-Tetrachloroethane	83.00	12.231	12.231	(1.128)	94955	250	250
	23	Bromochloromethane	128.00	4.931	4.931	(1.000)	49097	250	
*	32	1,4-Difluorobenzene	114.00	6.651	6.651	(1.000)	224829	250	
4	50	Chlorobenzene-d5	117.00	10.841	10.841	(1.000)	183244	250	
	26	1,2-Dichloroethane-d4	102.00	5.706	5.706	(1.157)	18674	250	250
ş	43	Toluene-d8	98.00	8.888	8.888	(0.820)	246434	250	250
\$	61	Bromofluorobenzene	95.00	12.516	12.516	(1.155)	95890	250	250

Data File: /chem/l.i/1951013.b/1286iw3.d

Report Date: 13-Oct-1995 16:40

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1286iw3.d

Lab Smp Id: VSTD050 Analysis Type: VOA

Quant Type: ISTD

Operator: JC Method File: /chem/l.i/1951013.b/lvoclpw.m

Misc Info: L286W1//L286IW3

Calibration Date: 10/13/95 Calibration Time: 1422

Calibracion 12.......

Level: LOW Sample Type: WATER

COMPOUND  ===================================	STANDARD ======= 49097 224829 183244	LOWER ======== 24548 112414 91622	LIMIT UPPER ======== 98194 449658 366488	SAMPLE ====================================	% DIFF ====== 0.00 0.00 0.00	
-----------------------------------------------	--------------------------------------------------	-----------------------------------------------	---------------------------------------------------------	------------------------------------------------	------------------------------------------	--

COMPOUND ====================================	STANDARD ======= 4.93 6.65 10.84	LOWER ======= 4.43 6.15	LIMIT   UPPER  ====================================	SAMPLE ====================================	% DIFF ====== 0.00 0.00 0.00
!				<u></u>	l

AREA UPPER LIMIT = +100% of internal standard area.

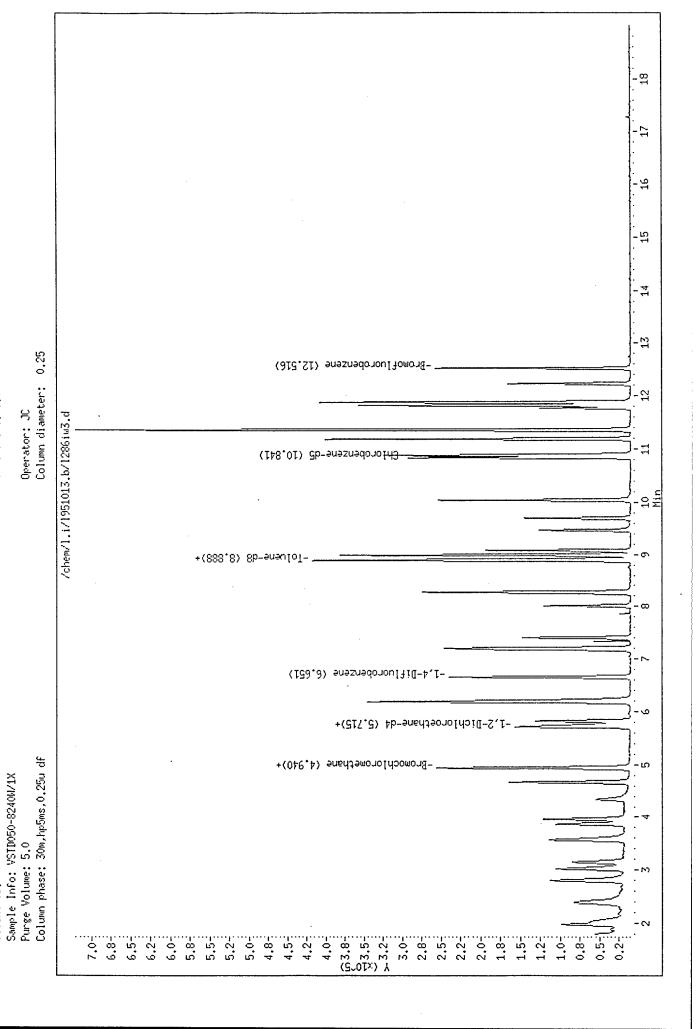
AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/l.i/1951013.b/1286iw3.d Date : 13-OCT-1995 14:22 Client ID:



Data File: /chem/l.i/1951013.b/l286iw4.d

Report Date: 13-Oct-1995 16:43

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951013.b/l286iw4.d

Lab Smp Id: VSTD100

Inj Date : 13-OCT-1995 15:40

Operator : JC

Inst ID: 1.i Smp Info : VSTD100-8240W/1X

Misc Info : L286W1//L286IW3

Comment

Method : /chem/l.i/1951013.b/lvoclpw.m

Meth Date : 13-Oct-1995 16:43 jimmy

Quant Type: ISTD Cal Date : 13-OCT-1995 14:22

Cal File: 1286iw3.d Als bottle: 6

Calibration Sample, Level: 4 Dil Factor: 1.000

Integrator: HP RTE

Compound Sublist: normal.sub Target Version: 3.10

	QUANT SIG				AMOUN	TS		
Compounds	MASS				CAL-AMT	ON-COL		
	MASS	RT	EXP RT REL RT	RESPONSE	(ng)	( ng)		
1 Chloromethane		==	EB### #####	2======	*======			•
2 Vinyl Chloride	50.00	1.672	1.672 (0.338)	164363	500	480		
3 Bromomethane	62.00	1.770	1.770 (0.358)	159462	500	490		
4 Chloroethane	94.00	1.984	1.984 (0.401)	137356	500	480		
7 Trichlorofluoromethane	64.00	2.046	2.046 (0.414)	96589	500	490		
	101.00	2.385	2.385 (0.482)	196565	500	510		
8 Acetone	58.00	2.439	2.439 (0.493)	21287	500	450		
11 1,1-Dichloroethene	96.00	2.813	2.813 (0.569)	132449	500	500		
13 Methylene Chloride	. 84.00	3.027	3.027 (0.612)	156697	500	490		
1 18 1,2-Dichloroethene (total)	96.00			304587	1000	1000		
14 Carbon Disulfide	76.00	3.161	3.161 (0.639)	364798	500	540		
15 trans-1,2-Dichloroethene	96.00	3.580	3.580 (0.724)	142161	500	500 (M)	JC	10/13/
17 1,1-Dichloroethane	63.00	3.883	3.883 (0.785)	260407	500	500		10/.5/
19 Vinyl Acetate	43.00	3.981	3.981 (0.805)	390428	500	480		·
20 2-Butanone	43.00	4.355	4.355 (0.881)	173915	500	480		
21 cis-1,2-Dichloroethene	96.00	4.685	4.685 (0.948)	162426	500	500		
24 Chloroform	83.00	4.961	4.961 (1.004)	285256	500	500		
27 1,1,1-Trichloroethane	97.00	5.755	5.755 (0.864)	206966	500	510		
28 1,2-Dichloroethane	62.00	5.835	5.835 (1.180)	242046	500	510		
30 Benzene	78.00	6.200	6.200 (0.930)	582637	500			
31 Carbon Tetrachloride	117.00	6.227	6.227 (0.934)	180014		510		
34 1,2-Dichloropropane	63.00	7.190	7.190 (1.079)	151775	500	510		
35 Trichloroethene	130.00	7.226	7.226 (1.084)	159468	500	510		
37 Bromodichloromethane	83.00	7.413	7.413 (1.112)		500	510		
39 2-Chloroethylvinylether	63.00	8.028	8.028 (1.205)	212686	500	510		
40 4-Methyl-2-Pentanone	43.00	8.259	8.259 (1.239)	92279	500	520		
41 cis-1,3-Dichloropropene	75.00	8.286	8.286 (1.243)	229968	500	530		
42 trans-1,3-Dichloropropene	75.00	8.910	•	240378	500	520		
44 Toluene	92.00	8.990	8.910 (1.337)	224885	500	530		
45 1,1,2-Trichloroethane	83.00		8.990 (0.829)	342813	500	510		
	03.00	9.080	9.080 (1.362)	117867	500	510		

Data File: /chem/l.i/1951013.b/l286iw4.d Report Date: 13-Oct-1995 16:43

_									AMOUN	TS	
i j			QUANT SIG					CAI	-AMT	ON-	COL
Ép	npou	inds	MASS	RT	EXP RT	REL RT	RESPONSE	(	ng)	(	ng)
-	===:	******	***	**		222323	EX35325	***		===	
	46	2-Hexanone	43.00	9.463	9.463	(0.873)	229822		500		530
	47	Dibromochloromethane	129.00	9.704	9.704	(1.456)	170237		500		510
	49	Tetrachloroethene	164.00	10.051	10.051	(0.927)	136721		500		500
	52	Chlorobenzene	112.00	10.889	10.889	(1.004)	371116		500		500
	53	Xylene (Total)	106.00				703173		1500		1500
	54	Ethylbenzene	106.00	11.201	11.201	(1.033)	186166		500		520
	55	m,p-Xylene(s)	106.00	11.362	11.362	(1.048)	469959		1000		1000
	56	Bromoform	173.00	11.772	11.772	(1.085)	129073		500		500
	57	Styrene	104.00	11.825	11.825	(1.090)	380362		500		530
	59	o-Xylene	106.00	11.887	11.887	(1.096)	233214		500		510
	60	1,1,2,2-Tetrachloroethane	83.00	12.235	12.235	(1.128)	181626		500		500
	23	Bromochloromethane	128.00	4.944	4.944	(1.000)	46182		250		
×.	32	1,4-Difluorobenzene	114.00	6.664	6.664	(1.000)	209814		250		
×	50	Chlorobenzene-d5	117.00	10.845	10.845	(1.000)	175359		250		
	26	1,2-Dichloroethane-d4	102.00	5.719	5.719	(1.157)	35598		500		500
÷	43	Toluene-d8	98.00	8.892	8.892	(0.820)	480976		500		510
\$	61	Bromofluorobenzene	95.00	12.520	12.520	(1.155)	191609		500		530

QC Flag Legend

- Compound response manually integrated.

Data File: /chem/l.i/1951013.b/l286iw4.d

Report Date: 13-Oct-1995 16:40

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1286iw4.d Calibration Date: 10/13/95 Calibration Time: 1422

Lab Smp Id: VSTD100 Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

Operator: JC Method File: /chem/l.i/1951013.b/lvoclpw.m

Misc Info: L286W1//L286IW3

		11112511	LIMIT	GAMPI E	0 0700
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	49097 224829 183244	24548 112414 91622	449658	46182 209814 175359	-5.94 -6.68 -4.30

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	4.93	4.43	7.15	4.94	0.26
32 1,4-Difluorobenzene	6.65	6.15		6.66	0.19
50 Chlorobenzene-d5	10.84	10.34		10.84	0.04

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/l.i/1951013.b/1286iw5.d

Report Date: 13-Oct-1995 16:43

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951013.b/l286iw5.d

Lab Smp Id: VSTD200

Inj Date : 13-OCT-1995 16:05

Operator : JC Inst ID: 1.i

Smp Info : VSTD200-8240W/1X
Misc Info : L286W1//L286IW3

Comment :

Method : /chem/l.i/1951013.b/lvoclpw.m

Meth Date: 13-Oct-1995 16:43 jimmy Quant Type: ISTD Cal Date: 13-OCT-1995 14:22 Cal File: 1286iw3.d

Als bottle: 7 Calibration Sample, Level: 5

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub Target Version: 3.10

						AMOUN	rrs `
	,	QUANT SIG				CAL-AMT	ON-COL
Co	mpounds ,	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)
==:	=======================================	E=22	==	=========	========		======
	1 Chloromethane	50.00	1.672	1.672 (0.338)	296390	1000	870
	2 Vinyl Chloride	62.00	1.779	1.779 (0.360)	289433	1000	880
	3 Bromomethane	94.00	1.984	1.984 (0.401)	253271	1000	890
	4 Chloroethane	64.00	2.046	2.046 (0.414)	178970	1000	910
	7 Trichlorofluoromethane	101.00	2.394	2.394 (0.484)	396914	1000	1000
	8 Acetone	58.00	2.438	2.438 (0.493)	56370	1000	1200
	11 1,1-Dichloroethene	96.00	2.813	2.813 (0.569)	259079	1000	970
	13 Methylene Chloride	84.00	3.027	3.027 (0.612)	307547	1000	960
M	18 1,2-Dichloroethene (total)	96.00			600964	2000	2000
	14 Carbon Disulfide	76.00	3.160	3.160 (0.639)	761698	1000	1100
	15 trans-1,2-Dichloroethene	96.00	3.579	3.579 (0.724)	274735	1000	960
	17 1,1-Dichloroethane	63.00	3.891	3.891 (0.787)	516326	1000	990
	19 Vinyl Acetate	43.00	3.980	3.980 (0.805)	784617	1000	950
	20 2-Butanone	43.00	4.355	4.355 (0.881)	343258	1000	930
	21 cis-1,2-Dichloroethene	96.00	4.685	4.685 (0.948)	326229	1000	1000
	24 Chloroform	83.00	4.961	4.961 (1.004)	568333	1000	990
	27 1,1,1-Trichloroethane	97.00	5.754	5.754 (0.864)	409994	1000	980
	28 1,2-Dichloroethane	62.00	5.834	5.834 (1.180)	481745	1000	1000
	30 Benzene	78.00	6.200	6.200 (0.930)	1130757	1000	960
	31 Carbon Tetrachloride	117.00	6.227	6.227 (0.934)	359202	1000	980
	34 1,2-Dichloropropane	63.00	7.189	7.189 (1.079)	301616	1000	990
	35 Trichloroethene	130.00	7.225	7.225 (1.084)	312870	1000	980
	37 Bromodichloromethane	83.00	7.412	7.412 (1.112)	425799	1000	990
	39 2-Chloroethylvinylether	63.00	8.027	8.027 (1.205)	197821	1000	1100
	40 4-Methyl-2-Pentanone	43.00	8.259	8.259 (1.239)	476276	1000	1100
	41 cis-1,3-Dichloropropene	75.00	8.286	8.286 (1.243)	480309	1000	1000
	42 trans-1,3-Dichloropropene	75.00	8.919	8.919 (1.338)	445200	1000	1000
	44 Toluene	92.00	8.999	8.999 (0.830)	675035	1000	990
	45 1,1,2-Trichloroethane	83.00	9.079	9.079 (1.363)	233477	1000	980

Data File: /chem/l.i/1951013.b/1286iw5.d Report Date: 13-Oct-1995 16:43

_							AMOUN	rts
			QUANT SIG				CAL-AMT	ON-COL
	mpou	ınds	MASS	RT	EXP RT REL I	RT RESPONSE	( ng)	( ng)
==		*******	***		*****	** ******		****
	46	2-Hexanone	43.00	9.462	9.462 (0.8	73) 488742	1000	1100
	47	Dibromochloromethane	129.00	9.703	9.703 (1.4	56) 335958	1000	980
77	49	Tetrachloroethene	164.00	10.051	10.051 (0.9	27) 271176	1000	980
_	52	Chlorobenzene	112.00	10.898	10.898 (1.0	05) 737613	1000	970
	53	Xylene (Total)	106.00			1384238	3000	3000
	54	Ethylbenzene	106.00	11.201	11.201 (1.0	33) 373455	1000	1000
	55	m,p-Xylene(s)	106.00	11.370	11.370 (1.0	48) 920676	2000	2000
	56	Bromoform	173.00	11.780	11.780 (1.0	86) 262741	1000	1000
	57	Styrene	104.00	11.833	11.833 (1.0	91) 760969	1000	1000
_	59	o-Xylene	106.00	11.887	11.887 (1.0	96) 463562	1000	1000
	60	1,1,2,2-Tetrachloroethane	83.00	12.235	12.235 (1.1	28) 374240	1000	1000
	23	Bromochloromethane	128.00	4.943	4.943 (1.0	00) 46421	250	
	32	1,4-Difluorobenzene	114.00	6.663	6.663 (1.0	00) 216616	250	
ځے	50	Chlorobenzene-d5	117.00	10.844	10.844 (1.0	00) 178255	250	
	26	1,2-Dichloroethane-d4	102.00	5.727	5.727 (1.1	59) 70063	1000	990
	43	Toluene-d8	98.00	8.892	8.892 (0.8	20) 949426	1000	1000
\$	61	Bromofluorobenzene	95.00	12.520	12.520 (1.1	55) 383314	1000	1000

Data File: /chem/l.i/1951013.b/1286iw5.d

Report Date: 13-Oct-1995 16:40

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1286iw5.d Calibration Date: 10/13/95 Calibration Time: 1422

Lab Smp Id: VSTD200 Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

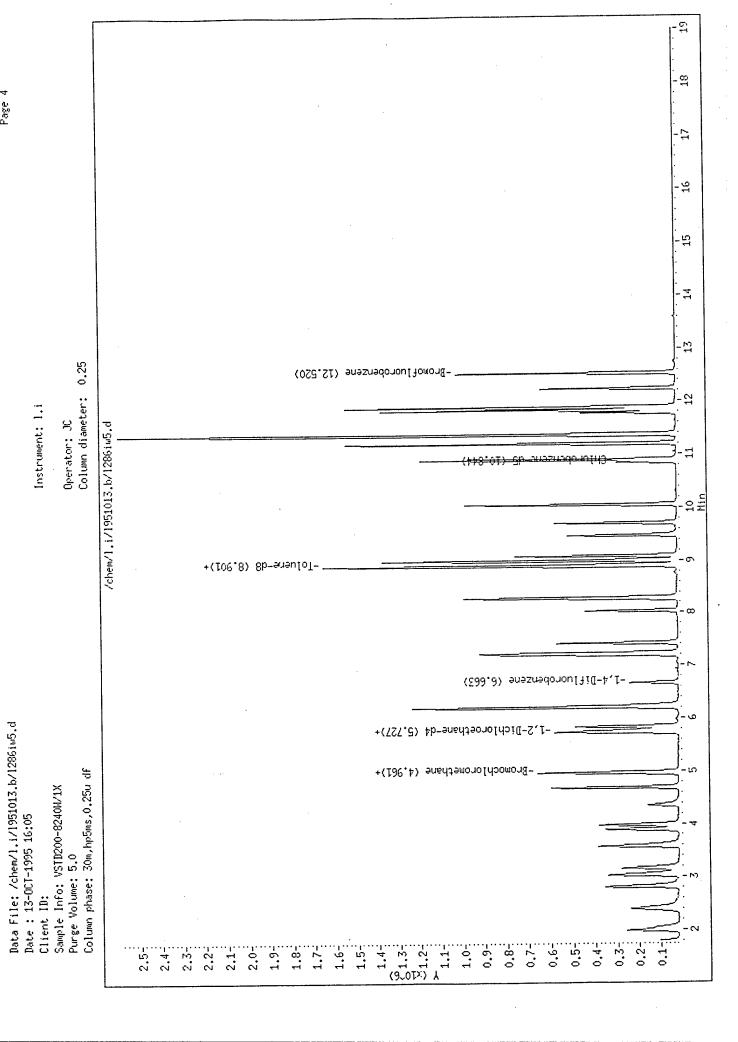
Operator: JC Method File: /chem/l.i/1951013.b/lvoclpw.m Misc Info: L286W1//L286IW3

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	49097 224829 183244	24548 112414 91622	449658	46421 216616 178255	-===== -5.45 -3.65 -2.72

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	4.93 6.65 10.84	l .	5.43 7.15 11.34	4.94 6.66 10.84	0.25

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area. RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i



Data File: /chem/l.i/1951029.b/1302cc1.d

Report Date: 29-Oct-1995 07:18

#### SPL Labs

### CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 1.i Lab File ID: 1302cc1.d Analysis Type: WATER Lab Sample ID: VSTD050

Injection Date: 29-OCT-1995 07:49

Init. Calibration Date(s): 10/13/95 10/13/95 Init. Calibration Times: 14:48 16:05 Method File: /chem/l.i/1951029.b/lvoclpw.m

Quant Type: ISTD

		l <u></u> I		MIN		MAX
(	COMPOUND	RRF		RRF	<b>%</b> D	<b>∤</b> D
	1 Chloromethane	1.839		====   0.010	0.3	40.0
	2 Vinyl Chloride	1.761		0.100		25.0
	3 Bromomethane	1.531		0.100		25.0
	4 Chloroethane	1.061		0.010		40.0
	7 Trichlorofluoromethane	2.080		0.010		40.0
•	8 Acetone	0.256		0.010		100.0
	11 1.1-Dichloroethene	1.434		0.100		25.0
	13 Methylene Chloride	1.723		0.010		40.0
1	18 1,2-Dichloroethene (total)	1.648		0.010		40.0
	14 Carbon Disulfide	3.625		0.010		40.0
	15 trans-1,2-Dichloroethene	1.538		0.010		40.0
	17 1,1-Dichloroethane	2.810		0.200		25.0
	19 Vinyl Acetate	4.437		0.010		100.0
	20 2-Butanone	1.978		0.010		100.0
	21 cis-1,2-Dichloroethene	1.759	·	0.010		25.0
	24 Chloroform	3.094		0.200		25.0
	27 1,1,1-Trichloroethane	0.483		0.100		25.0
	28 1,2-Dichloroethane	2.577	2.690	0.100		25.0
	30 Benzene	1.359	1.345	0.500		25.0
	31 Carbon Tetrachloride	0.421		0.100		25.0
	34 1,2-Dichloropropane	0.352		0.010		25.0
	35 Trichloroethene	0.369	0.386	0.300	4.5	25.0
	37 Bromodichloromethane	0.497	0.521	0.200	4.8	25.0
	39 2-Chloroethylvinylether	0.212	0.189	0.010	10.8	100.0
	40 4-Methyl-2-Pentanone	0.517	0.397	0.010	23.2	100.0
	41 cis-1,3-Dichloropropene	0.549	0.554	0.100	0.9	25.0
	42 trans-1,3-Dichloropropene	0.509	0.511	0.100	0.4	25.0
	44 Toluene	0.954	0.955	0.400	0.2	25.0
	45 1,1,2-Trichloroethane	0.274	0.276	0.100	0.5	25.0
	46 2-Hexanone	0.623	0.413	0.010	33.7	100.0
	47 Dibromochloromethane	0.397	0.414	0.100	4.4	25.0
	49 Tetrachloroethene	0.389	0.410	0.200	5.4	25.0
	52 Chlorobenzene	1.061	1.056	0.500	0.5	25.0
ī	53 Xylene (Total)	0.649	0.658	0.300	1.5	25.0
	54 Ethylbenzene	0.510	0.506	0.100	0.8	25.0
	55 m,p-Xylene(s)	0.649	0.656	0.300	1.1	25.0
	56 Bromoform	0.370	0.375	0.100	1.4	25.0
	57 Styrene	1.015	0.996	0.300	1.8	25.
	59 o-Xylene	0.648	0.662	0.300	2.2	25.0
	60 1,1,2,2-Tetrachloroethane	0.521	0.498	0.300	4.5	25.0
		I				ŀ

Data File: /chem/l.i/1951029.b/l302ccl.d

Report Date: 29-Oct-1995 07:18

#### SPL Labs

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 1.i Lab File ID: 1302cc1.d Analysis Type: WATER Lab Sample ID: VSTD050

Quant Type: ISTD

Injection Date: 29-OCT-1995 07:49 Init. Calibration Date(s): 10/13/95 10/13/95 Init. Calibration Times: 14:48 16:05 Method File: /chem/l.i/1951029.b/lvoclpw.m

[		1 1		MIN		MAX
l	COMPOUND	RRF	RF250	RRF	<b>%</b> D ∣	1 to 1
==		== ====================================	*******			
\$	26 1,2-Dichloroethane-d4	0.381		0.010	,	40.0
\$	43 Toluene-d8	1.333		0.010	1	40.0
\$	61 Bromofluorobenzene	0.515		0.010	1	25.0
		_ii_		· 1	4.0 <sub> </sub>	23.

Data File: /chem/l.i/1951029.b/1302cc1.d

Report Date: 07-Nov-1995 18:31

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951029.b/l302cc1.d

Lab Smp Id: VSTD050

Inj Date : 29-OCT-1995 07:49

Operator : JC Inst ID: 1.i

: VSTD050-8240W/1X Smp Info Misc Info : L302W1//L302CC1

Comment

Method : /chem/1.i/1951029.b/lvoclpw.m

Meth Date: 07-Nov-1995 18:31 patti Quant Type: ISTD

Cal Date : 29-OCT-1995 07:49 Cal File: 1302cc1.d Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.000 Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

						AMOUN	TTS	
		QUANT SIG				CAL-AMT	ON-COL	
Co	ompounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ng)	
=:	***********	* = * =	==		****		***	
	1 Chloromethane	50.00	1.641	1.641 (0.333)	89319	250	250	
	2 Vinyl Chloride	62.00	1.748	1.748 (0.355)	90003	250	260	
	3 Bromomethane	94.00	1.962	1.962 (0.399)	67104	250	220	
	4 Chloroethane	64.00	2.033	2.033 (0.413)	49006	250	240	
	7 Trichlorofluoromethane	101.00	2.417	2.417 (0.491)	109394	250	270	
	8 Acetone	58.00	2.417	2.417 (0.491)	8252	250	160	. /
	11 1,1-Dichloroethene	96.00	2.835	2.835 (0.576)	68554	250	240 (M) 50	10/29/
	13 Methylene Chloride	84.00	3.014	3.014 (0.612)	77626	250	230	( )
M	18 1,2-Dichloroethene (total)	96.00			152060	500	470	
	14 Carbon Disulfide	76.00	3.147	3.147 (0.640)	242540	250	340	
	15 trans-1,2-Dichloroethene	96.00	3.549	3.549 (0.721)	67293	250	220	
	17 1,1-Dichloroethane	63.00	3.861	3.861 (0.784)	130246	250	240	
	19 Vinyl Acetate	43.00	3.959	3.959 (0.804)	196694	250	230	
	20 2-Butanone	43.00	4.333	4.333 (0.880)	65824	250	170	
	21 cis-1,2-Dichloroethene	96.00	4.663	4.663 (0.947)	84767	250	250	
	24 Chloroform	83.00	4.939	4.939 (1.004)	154027	250	260	
	27 1,1,1-Trichloroethane	97.00	5.732	5.732 (0.863)	107901	250	260	
	28 1,2-Dichloroethane	62.00	5.813	5.813 (1.181)	131050	250	260	
	30 Benzene	78.00	6.178	6.178 (0.930)	291665	250	250	
	31 Carbon Tetrachloride	117.00	6.196	6.196 (0.933)	99769	250	270	
	34 1,2-Dichloropropane	63.00	7.168	7.168 (1.079)	74807	250	240	
	35 Trichloroethene	130.00	7.203	7.203 (1.085)	83615	250	260	
	37 Bromodichloromethane	83.00	7.399	7.399 (1.114)	112949	250	260	
	39 2-Chloroethylvinylether	63.00	8.006	8.006 (1.205)	40960	250	220	
	40 4-Methyl-2-Pentanone	43.00	8.246	8.246 (1.242)	86015	250	190	
	41 cis-1,3-Dichloropropene	75.00	8.264	8.264 (1.244)	120029	250	250	
	42 trans-1,3-Dichloropropene	75.00	8.897	8.897 (1.340)	110762	250	250	
	44 Toluene	92.00	8.977	8.977 (0.829)	174602	250	250	
	45 1,1,2-Trichloroethane	83.00	9.057	9.057 (1.364)	59733	250	250	

ata File: /chem/l.i/1951029.b/l302cc1.d Report Date: 07-Nov-1995 18:31

-	}							MOUN	TS
_			QUANT SIG					CAL-AMT	ON-COL
	mpo	unds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ng)
			3553	==		*****		======	5=====
	46	2-Hexanone	43.00	9.450	9.450	(0.872)	75482	250	160
1	47	Dibromochloromethane	129.00	9.681	9.681	(1.458)	89862	250	260
	49	Tetrachloroethene	164.00	10.029	10.029	(0.926)	74952	250	260
	52	Chlorobenzene	112.00	10.876	10.876	(1.004)	193070	250	250
ľ	53	Xylene (Total)	106.00				360895	750	760
	54	Ethylbenzene	106.00	11.179	11.179	(1.032)	92486	250	250
-	55	m,p-Xylene(s)	106.00	11.348	11.348	(1.048)	239944	500	500
4	56	Bromoform	173.00	11.758	11.758	(1.086)	68564	250	250
	57	Styrene	104.00	11.812	11.812	(1.091)	182055	250	240
	59	o-Xylene	106.00	11.874	11.874	(1.096)	120951	250	260
	60	1,1,2,2-Tetrachloroethane	83.00	12.222	12.222	(1.128)	90993	250	240
	23	Bromochloromethane	128.00	4.921	4.921	(1.000)	48718	250	
	32	1,4-Difluorobenzene	114.00	6.642	6.642	(1.000)	216810	250	
¥	50	Chlorobenzene-d5	117.00	10.831	10.831	(1.000)	182758	250	
4	26	1,2-Dichloroethane-d4	102.00	5.706	5.706	(1.159)	18693	250	250
Ş	43	Toluene-d8	98.00	8.879	8.879	(0.820)	236541	250	240
	61	Bromofluorobenzene	95.00	12.507	12.507	(1.155)	90393	250	240

C Flag Legend

- Compound response manually integrated.

Data File: /chem/l.i/1951029.b/1302cc1.d

Report Date: 29-Oct-1995 07:17

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1302cc1.d Lab Smp Id: VSTD050 Calibration Date: 10/29/95 Calibration Time: 0749

Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

Operator: JC

Method File: /chem/l.i/1951029.b/lvoclpw.m Misc Info: L302W1//L302CC1

		AREA			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	48718 216810 182758	1	433620	48718 216810 182758	

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	4.92 6.64 10.83	4.42 6.14 10.33	5.42 7.14 11.33	4.92 6.64 10.83	0.00

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/1.i/1951029.b/1302cc1.d Date : 29-DCT-1995 07:49

Client ID: Sample Info: VSTDO50-8240U/1X Purge Volume: 5.0 Data File: /chem/l.i/1951031.b/l304cc1.d

Report Date: 31-Oct-1995 09:09

#### SPL Labs

#### CONTINUING CALIBRATION COMPOUNDS

Instrument ID: l.i Lab File ID: l304cc1.d Analysis Type: WATER Lab Sample ID: VSTD050 Injection Date: 31-OCT-1995 08:15
Init. Calibration Date(s): 10/13/95 10/13/95
Init. Calibration Times: 14:48 16:05

Method File: /chem/l.i/1951031.b/lvoclpw.m

Quant Type: ISTD

		l		MIN	1	MAX
C	OMPOUND	RRF	RF250	RRF	*D	<b>%</b> D
= ×	1 Chloromethane	1.839		====   =   0.010	16.2	
	2 Vinyl Chloride	1.761		0.100	12.1	25.
	3 Bromomethane	1.531		0.100	18.0	
	4 Chloroethane	1.061		0.010	22.4	40.
	7 Trichlorofluoromethane	2.080		0.010	4.2	
•	8 Acetone	0.256		0.010	14.7	
	11 1,1-Dichloroethene	1.434		0.100	10.1	
	*	1.723		[0.010]	18.3	
	13 Methylene Chloride 18 1,2-Dichloroethene (total)	1.648		0.010	15.4	
		3.625		[0.010]	•	40.
	14 Carbon Disulfide	1.538		0.010	19.6	
	15 trans-1,2-Dichloroethene	2.810		0.200	22.5	
	17 1,1-Dichloroethane	4.437		0.010	19.7	
	19 Vinyl Acetate	1.978		0.010	32.7	
	20 2-Butanone	1.759		[0.010]	11.8	
	21 cis-1,2-Dichloroethene	3.094		0.200		25.
	24 Chloroform	0.483		0.100		
	27 1,1,1-Trichloroethane	2.577		0.100		25.
	28 1,2-Dichloroethane	1.359		[0.500]		
	30 Benzene	0.421		0.100		25.
	31 Carbon Tetrachloride	0.352		[0.010]		
	34 1,2-Dichloropropane	0.352		0.300		25
	35 Trichloroethene	0.399		[0.200]		25
	37 Bromodichloromethane			10.010		•
	39 2-Chloroethylvinylether	0.212		0.010		•
	40 4-Methyl-2-Pentanone	0.517		[0.100]		25
	41 cis-1,3-Dichloropropene	0.549		0.100		25
	42 trans-1,3-Dichloropropene			. 0.400		25
	44 Toluene	0.954		:[0.100]		25
	45 1,1,2-Trichloroethane	0.274		0.010		
	46 2-Hexanone	0.623		0.100		25
	47 Dibromochloromethane	0.397		10.200		25
	49 Tetrachloroethene	0.389		3 0.500	•	25
	52 Chlorobenzene	1.061		3 0.300		25
1	53 Xylene (Total)	0.649		•		25
	54 Ethylbenzene	0.510		3 0.100		25
	55 m,p-Xylene(s)	0.649		3 0.300	•	25
	56 Bromoform	0.370		7 0.100	•	25
	57 Styrene	1.015		1 0 . 300		•
	59 o-Xylene	0.648		3   0.300	•	25
	60 1,1,2,2-Tetrachloroethane	0.521	0.47	6 0.300	j 8.7	25

Data File: /chem/l.i/1951031.b/l304cc1.d

Report Date: 31-Oct-1995 09:09

#### SPL Labs

#### CONTINUING CALIBRATION COMPOUNDS

Instrument ID: l.i Lab File ID: l304cc1.d Analysis Type: WATER Lab Sample ID: VSTD050 Injection Date: 31-OCT-1995 08:15

Init. Calibration Date(s): 10/13/95 10/13/95
Init. Calibration Times: 14:48 16:05
Method File: /chem/l.i/1951031.b/lvoclpw.m

Quant Type: ISTD

COMPOUND	 RRF	RF250	MIN   RRF	₹D	MAX
\$ 26 1,2-Dichloroethane-d4    \$ 43 Toluene-d8	0.381	0.367	0.010	3.6	•
\$ 61 Bromofluorobenzene	0.515		0.010	•	25.0

Data File: /chem/l.i/1951031.b/l304cc1.d

Report Date: 31-Oct-1995 17:08

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951031.b/l304cc1.d

Lab Smp Id: VSTD050

Inj Date : 31-OCT-1995 08:15

Operator : JC

Inst ID: 1.i

Smp Info : VSTD050-8240W/1X
Misc Info : L304W1//L304CC1

Comment :

Method : /chem/l.i/1951031.b/lvoclpw.m

Meth Date: 31-Oct-1995 17:08 jimmy

Cal Date : 31-OCT-1995 08:15

Quant Type: ISTD

Cal File: 1304cc1.d

Als bottle: 2 Dil Factor: 1.000

Continuing Calibration Sample

Integrator: HP RTE

Compound Sublist: normal.sub

Target Version: 3.10

					AMOUN	TS .		
	QUANT SIG		•		CAL-AMT	ON-COL		
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	(ng)		
	*===	==	*****	F	*=====	=======		
1 Chloromethane	50.00	1.598	1.598 (0.333)	71081	250	210		
2 Vinyl Chloride	62.00	1.696	1.696 (0.353)	71359	250	220		
3 Bromomethane	94.00	1.910	1.910 (0.398)	57902	250	200		
4 Chloroethane	64.00	2.008	2.008 (0.418)	37952	250	190		
7 Trichlorofluoromethane	101.00	2.355	2.355 (0.491)	99949	250	260 (M)	ರ೦	10/31/95
8 Acetone	58.00	2.346	2.346 (0.489)	10079	250	210 (M)	JC	13/21/19
11 1,1-Dichloroethene	96.00	2.774	2.774 (0.578)	59507	250	220 (M)	JC	
13 Methylene Chloride	84.00	2.944	2.944 (0.614)	64958	250	200 (M)		
M 18 1,2-Dichloroethene (total)	96.00			128660	500	420	JC	
14 Carbon Disulfide	76.00	3.086	3.086 (0.643)	180741	250	270		
15 trans-1,2-Dichloroethene	96.00	3.443	3.443 (0.718)	57051	250	200 (M)	TC.	
17 1,1-Dichloroethane	63.00	3.755	3.755 (0.783)	100497	250	190	30	
19 Vinyl Acetate	43.00	3.844	3.844 (0.801)	164452	250	200		
20 2-Butanone	43.00	4.218	4.218 (0.879)	61467	250	170		
21 cis-1,2-Dichloroethene	96.00	4.539	4.539 (0.946)	71609	250	220		
24 Chloroform	83.00	4.815	4.815 (1.004)	135141	250	240		
27 1,1,1-Trichloroethane	97.00	5.609	5.609 (0.859)	80633	250	210		
28 1,2-Dichloroethane	62.00	5.698	5.698 (1.188)	116746	250 250			
30 Benzene	78.00	6.054	6.054 (0.928)	242055	250	240		
31 Carbon Tetrachloride	117.00	6.081	6.081 (0.932)	81966		220		
34 1,2-Dichloropropane	63.00	7.053	7.053 (1.081)	61343	250	240		
35 Trichloroethene	130.00	7.089	7.089 (1.086)	73339	250	220		
37 Bromodichloromethane	83.00	7.276	7.276 (1.115)	100003	250	250		
39 2-Chloroethylvinylether	63.00	7.900	7.900 (1.210)	•	250	250		
40 4-Methyl-2-Pentanone	43.00	8.131	8.131 (1.246)	24025	250	140		
41 cis-1,3-Dichloropropene	75.00	8.149		70528	250	170		
42 trans-1,3-Dichloropropene	75.00	8.782	8.149 (1.249)	100480	250	230		
44 Toluene	92.00		8.782 (1.346)	96066	250	240		
45 1,1,2-Trichloroethane	83.00	8.862	8.862 (0.827)	148915	250	230		
	03.00	8.952	8.952 (1.371)	52422	250	240		

Data File: /chem/l.i/1951031.b/l304cc1.d eport Date: 31-Oct-1995 17:08

							MOUN	TS
		QUANT SIG					CAL-AMT	ON-COL
CO	ompounds	MASS	RT	EXP RT	REL RT	RESPONSE	( ng)	( ng)
	**************		==	*****			*****	*****
	46 2-Hexanone	43.00	9.344	9.344	(0.872)	61215	250	150
	47 Dibromochloromethane	129.00	9.567	9.567	(1.466)	83332	250	260
	49 Tetrachloroethene	164.00	9.923	9.923	(0.926)	67360	250	260
	52 Chlorobenzene	112.00	10.761	10.761	(1.004)	168425	250	240
	53 Xylene (Total)	106.00				312142	750	720
_	54 Ethylbenzene	106.00	11.073	11.073	(1.033)	79873	250	230
_	55 m,p-Xylene(s)	106.00	11.242	11.242	(1.049)	206379	500	480
	56 Bromoform	173.00	11.644	11.644	(1.087)	66400	250	270
	57 Styrene	104.00	11.706	11.706	(1.092)	158946	250	230
	59 o-Xylene	106.00	11.759	11.759	(1.097)	105763	250	240
	60 1,1,2,2-Tetrachloroethane	83.00	12.107	12.107	(1.130)	79537	250	230
	23 Bromochloromethane	128.00	4.798	4.798	(1.000)	46135	250	
*	32 1,4-Difluorobenzene	114.00	6.527	6.527	(1.000)	200390	250	
	50 Chlorobenzene-d5	117.00	10.716	10.716	(1.000)	167061	250	
	26 1,2-Dichloroethane-d4	102.00	5.582	5.582	(1.163)	16937	250	240
Ş	43 Toluene-d8	98.00	8.764	8.764	(0.818)	212911	250	240
\$	61 Bromofluorobenzene	95.00	12.401	12.401	(1.157)	82925	250	240

QC Flag Legend

- Compound response manually integrated.

Data File: /chem/l.i/1951031.b/l304cc1.d

Report Date: 31-Oct-1995 08:46

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1304cc1.d Calibration Date: 10/31/95 Calibration Time: 0815

Lab Smp Id: VSTD050 Analysis Type: VOA

Level: LOW

Quant Type: ISTD

Sample Type: WATER

Operator: JC Method File: /chem/l.i/1951031.b/lvoclpw.m

Misc Info: L304W1//L304CC1

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	46135 200390 167061	23068 100195 83530	400780	46135 200390 167061	0.00

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane	4.80	4.30	5.30	4.80	0.00
32 1,4-Difluorobenzene	6.53	6.03	7.03	6.53	
50 Chlorobenzene-d5	10.72	10.22	11.22	10.72	

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/l.i/1951029.b/l302td1.d

Report Date: 29-Oct-1995 09:04

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951029.b/l302td1.d

Lab Smp Id: LCSD

Inj Date : 29-OCT-1995 09:36

Inst ID: 1.i Operator : JC

Smp Info : METHSPIKEDUP-8240W/1X Misc Info : L302W1/L302TL1/L302CC1

Comment

Method : /chem/l.i/1951029.b/lvoclpw.m

Quant Type: ISTD Meth Date : 29-Oct-1995 09:01 jimmy Cal File: 1302cc1.d Cal Date : 29-OCT-1995 07:49 QC Sample: METHSPIKE

Als bottle: 6

Dil Factor: 1.000 Compound Sublist: normal.sub Integrator: HP RTE

Target Version: 3.10

					CONCENTRA	ATIONS		
	QUANT SIG				ON-COLUMN	FINAL		
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)		
	<b>亚亚苯</b> 苯	==	*****					
1 Chloromethane	50.00	1.636	1.641 (0.333)	67061	210	43		
2 Vinyl Chloride	62.00	1.743	1.748 (0.355)	72255	230	46		
3 Bromomethane	94.00	1.957	1.962 (0.398)	58297	250	50		
4 Chloroethane	64.00	2.037	2.033 (0.414)	38634	220	45		
7 Trichlorofluoromethane	101.00	2.421	2.417 (0.492)	97256	250	51		
8 Acetone	58.00	2.421	2.417 (0.492)	7072	240	49	-	· la alac
11 1,1-Dichloroethene	96.00	2.849	2.835 (0.579)	60142	250	50 (M)	づし	10/29/95
13 Methylene Chloride	84.00	3.009	3.014 (0.612)	64260	. 240	47		. (
M 18 1,2-Dichloroethene (total)	96.00			117670	440	88		
14 Carbon Disulfide	76.00	3.152	3.147 (0.641)	200768	240	47		
15 trans-1,2-Dichloroethene	96.00	3.553	3.549 (0.723)	46441	200	39		
17 1,1-Dichloroethane	63.00	3.865	3.861 (0.786)	105341	230	46		
19 Vinyl Acetate	43.00	3.954	3.959 (0.804)	157958	230	46		
20 2-Butanone	43.00	4.337	4.333 (0.882)	58173	250	50		
21 cis-1,2-Dichloroethene	96.00	4.658	4.663 (0.947)	71229	240	48		
24 Chloroform	83.00	4.934	4.939 (1.004)	132317	240	49		
27 1,1,1-Trichloroethane	97.00	5.728	5.732 (0.862)	95885	260	51		
28 1,2-Dichloroethane	62.00	5.817	5.813 (1.183)	115618	250	50		
30 Benzene	78.00	6.173	6.178 (0.929)	237270	230	47		
31 Carbon Tetrachloride	117.00	6.200	6.196 (0.933)	90865	260	52		
34 1,2-Dichloropropane	63.00	7.163	7.168 (1.078)	60440	230	47		
35 Trichloroethene	130.00	7.199	7.203 (1.083)	74369	260	51		
37 Bromodichloromethane	83.00	7.386	7.399 (1.111)	99895	260	51		
39 2-Chloroethylvinylether	63.00	8.001	8.006 (1.204)	30133	210	42		
40 4-Methyl-2-Pentanone	43.00	8.241	8.246 (1.240)	69546	230	47		
41 cis-1,3-Dichloropropene	75.00	8.259	8.264 (1.243)	97406	230	47		
42 trans-1,3-Dichloropropene	75.00	8.892	8.897 (1.338)	91028	240	47		
44 Toluene	92.00	8.972	8.977 (0.829)	147198	240	48		
45 1,1,2-Trichloroethane	83.00	9.053	9.057 (1.362)	51445	250	50		

Data File: /chem/l.i/1951029.b/l302td1.d Report Date: 29-Oct-1995 09:04

	0773.300				CONCENTRA	ATIONS
Compounds	QUANT SIG				ON-COLUMN	FINAL
	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	*===	==	医克里里氏核 美国森林地名	=======		
46 2-Hexanone	43.00	9.445	9.450 (0.872)	60086	230	46
47 Dibromochloromethane	129.00	9.677	9.681 (1.456)	80148	260	
49 Tetrachloroethene	164.00	10.024	•	66787		51
52 Chlorobenzene	112.00	10.871	•		260	51
53 Xylene (Total)	106.00		10.070 (1.004)	164855	240	49
54 Ethylbenzene	106.00			312539	750	150
55 m,p-Xylene(s)		11.174	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	80923	250	50
56 Bromoform	106.00	11.343	11.348 (1.048)	207301	500	99
57 Styrene	173.00	11.754	11.758 (1.086)	64396	270	54
	104.00	11.807	11.812 (1.091)	156634	250	49
59 o-Xylene	106.00	11.869	11.874 (1.096)	105238	250	50
60 1,1,2,2-Tetrachloroethane	83.00	12.217	12.222 (1.128)	78614	250	50
23 Bromochloromethane	128.00	4.917	4.921 (1.000)	42645	250	50
32 1,4-Difluorobenzene	114.00	6.646	•	187890		
50 Chlorobenzene-d5	117.00	10.826	(2.000)		250	
26 1,2-Dichloroethane-d4	102.00	5.701	12:000,	159114	250	
43 Toluene-d8	98.00		(1.100)	15288	230	47
61 Bromofluorobenzene	95.00	8.874	(0.020)	200552	240	49
	95.00	12.502	12.507 (1.155)	77353	240	49

QC Flag Legend

<sup>-</sup> Compound response manually integrated.

Data File: /chem/l.i/1951029.b/l302tl1.d

Report Date: 29-Oct-1995 08:46

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## SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i Lab File ID: 1302tl1.d

Lab Smp Id: LCS Analysis Type: VOA

Quant Type: ISTD Operator: JC

Method File: /chem/l.i/1951029.b/lvoclpw.m

Misc Info: L302W1//L302CC1

Calibration Date: 10/29/95 Calibration Time: 0749

Level: LOW

Sample Type: WATER

COMPOUND  23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5  STANDARD  ==================================	24359 108405	IMIT UPPER ===================================	SAMPLE ====================================	% DIFF ====== -10.13 -11.11 -10.97	
--------------------------------------------------------------------------------------------------------------------------	-----------------	------------------------------------------------------	------------------------------------------------	------------------------------------------------	--

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

16 13-0.25 - Bromofluorobenzene (12,503) Operator: JC Column diameter: 12 Instrument: 1.i /chem/1.i/1951029.b/1302t11.d Chlorobenzene-d5 (10,827) +(678.8) 8b-ensuloT-7 - ω (90909) auazuaqouon[Ji[-61-. Data File: /chem/l.i/1951029.b/1302t11.d Date : 29-OCT-1995 09:09 -1,2-Dichlorcethane-d4 (5,710)+ Client ID: Sample Info: METHSPIKE-8240W/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0,25u df -Bromochloromethane (4.935)+ 

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-8

-2

Data File: /chem/l.i/1951029.b/l302td1.d

Report Date: 29-Oct-1995 09:04

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951029.b/l302td1.d

Lab Smp Id: LCSD

Inj Date : 29-OCT-1995 09:36

Operator : JC Inst ID: 1.i

Smp Info : METHSPIKEDUP-8240W/1X
Misc Info : L302W1/L302TL1/L302CC1

Comment

Method : /chem/l.i/1951029.b/lvoclpw.m

Meth Date: 29-Oct-1995 09:01 jimmy Quant Type: ISTD Cal Date: 29-OCT-1995 07:49 Cal File: 1302cc1.d QC Sample: METHSPIKE

Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

						CONCENTR	ATIONS		
		QUANT SIG				ON-COLUMN	FINAL		
C	Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)		
=	======================================	====	==	E#2### #####	******	*****	======		
	1 Chloromethane	50.00	1.636	1.641 (0.333)	67061	210	43		
	2 Vinyl Chloride	62.00	1.743	1.748 (0.355)	72255	230	46		
	3 Bromomethane	94.00	1.957	1.962 (0.398)	58297	250	50		
	4 Chloroethane	64.00	2.037	2.033 (0.414)	38634	220	45		
	7 Trichlorofluoromethane	101.00	2.421	2.417 (0.492)	97256	250	51		
	8 Acetone	58.00	2.421	2.417 (0.492)	7072	240	49		, ,
	11 1,1-Dichloroethene	96.00	2.849	2.835 (0.579)	60142	250	50 (M)	JC	10/29/95
	13 Methylene Chloride	84.00	3.009	3.014 (0.612)	64260	240	47		/ /
M	M 18 1,2-Dichloroethene (total)	96.00			117670	440	88		
	14 Carbon Disulfide	76.00	3.152	3.147 (0.641)	200768	240	47		
	15 trans-1,2-Dichloroethene	96.00	3.553	3.549 (0.723)	46441	200	39		
	17 1,1-Dichloroethane	63.00	3.865	3.861 (0.786)	105341	230	46		
	19 Vinyl Acetate	43.00	3.954	3.959 (0.804)	157958	230	46		
	20 2-Butanone	43.00	4.337	4.333 (0.882)	58173	250	50		
	21 cis-1,2-Dichloroethene	96.00	4.658	4.663 (0.947)	71229	240	48		
	24 Chloroform	83.00	4.934	4.939 (1.004)	132317	240	49		
	27 1,1,1-Trichloroethane	97.00	5.728	5.732 (0.862)	95885	260	51		
	28 1,2-Dichloroethane	62.00	5.817	5.813 (1.183)	115618	250	50		
	30 Benzene	78.00	6.173	6.178 (0.929)	237270	230	47		
	31 Carbon Tetrachloride	117.00	6.200	6.196 (0.933)	90865	260	52		
	34 1,2-Dichloropropane	63.00	7.163	7.168 (1.078)	60440	230	47		
	35 Trichloroethene	130.00	7.199	7.203 (1.083)	74369	260	51		
	37 Bromodichloromethane	83.00	7.386	7.399 (1.111)	99895	260	51		
	39 2-Chloroethylvinylether	63.00	8.001	8.006 (1.204)	30133	210	42		
	40 4-Methyl-2-Pentanone	43.00	8.241	8.246 (1.240)	69546	230	47		
	41 cis-1,3-Dichloropropene	75.00	8.259	8.264 (1.243)	97406	230	47		
	42 trans-1,3-Dichloropropene	75.00	8.892	8.897 (1.338)	91028	240	47		
	44 Toluene	92.00	8.972	8.977 (0,829)	147198	240	48		
	45 1,1,2-Trichloroethane	83.00	9.053	9.057 (1.362)	51445	250	50		

Data File: /chem/l.i/l951029.b/l302td1.d Report Date: 29-Oct-1995 09:04

						CONCENTRA	ATIONS
		QUANT SIG				ON-COLUMN	FINAL
to	mpounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	起来还是是这些是是是这是这些是是因为不平于中华	***	22 28	**==== =====	2222222	***	
	46 2-Hexanone	43.00	9.445	9.450 (0.872)	60086	230	46
	47 Dibromochloromethane	129.00	9.677	9.681 (1.456)	80148	260	51
	49 Tetrachloroethene	164.00	10.024	10.029 (0.926)	66787	260	51
_	52 Chlorobenzene	112.00	10.871	10.876 (1.004)	164855	240	49
1	53 Xylene (Total)	106.00			312539	750	150
	54 Ethylbenzene	106.00	11.174	11.179 (1.032)	80923	250	50
	55 m,p-Xylene(s)	106.00	11.343	11.348 (1.048)	207301	500	99
	56 Bromoform	173.00	11.754	11.758 (1.086)	64396	270	54
	57 Styrene	104.00	11.807	11.812 (1.091)	156634	250	49
	59 o-Xylene	106.00	11.869	11.874 (1.096)	105238	250	50
	60 1,1,2,2-Tetrachloroethane	83.00	12.217	12.222 (1.128)	78614	250	50
	23 Bromochloromethane	128.00	4.917	4.921 (1.000)	42645	250	
*	32 1,4-Difluorobenzene	114.00	6.646	6.642 (1.000)	187890	250	
*	50 Chlorobenzene-d5	117.00	10.826	10.831 (1.000)	159114	250	
	26 1,2-Dichloroethane-d4	102.00	5.701	5.706 (1.160)	15288	230	47
ş	43 Toluene-d8	98.00	8.874	8.879 (0.820)	200552	240	49
\$	61 Bromofluorobenzene	95.00	12.502	12.507 (1.155)	77353	240	49

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/l.i/1951029.b/1302td1.d

Report Date: 29-Oct-1995 09:04

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#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1302td1.d Lab Smp Id: LCSD Analysis Type: VOA

Quant Type: ISTD
Operator: JC
Method File: /chem/l.i/1951029.b/lvoclpw.m
Misc Info: L302W1/L302TL1/L302CC1

Calibration Date: 10/29/95

Calibration Time: 0749

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	48718 216810 182758	24359 108405 91379	433620	42645 187890 159114	-13.34

		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	4.92 6.64 10.83	4.42 6.14 10.33	5.42 7.14 11.33	4.92 6.65 10.83	-0.10 0.06 -0.04

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Instrument: 1.i

Data File: /chem/1.i/1951029.b/1302td1.d

```
-8
                                                                                                                                               -12
                                                                                                                                               -8
                                                                                                                                               -12
                                                                                                                                                -#
           0.25
                                                                -Bromofluorobenzene (12,502)
        Operator: JC
Column diameter:
                 /chem/1.i/1951029.b/1302td1.d
                                                              (10,826) Ch-ansenadonotria
                                                   -10luene-d8 (8.874)+
                                                                       (758.8) ensznadonoulli[-4,1-
                                                                              -1,2-Dichloroethane-d4 (5,701)+
Date: 29-OCT-1995 09:36
Client ID:
Sample Info: METHSFIKEDUP-8240W/1X
Purge Volume: 5.0
Column phase: 30m,hp5ms,0.25u df
                                                                 -Exponochicronethare (4.925)+
```

Data File: /chem/l.i/1951031.b/1304tl1.d

Report Date: 31-Oct-1995 10:14

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951031.b/l304tl1.d

Lab Smp Id: LCS

Inj Date : 31-OCT-1995 09:36

Operator : JC Inst ID: 1.i

Smp Info : METHSPIKE-8240W/1X Misc Info : L304W1//L304CC1

Comment

: /chem/l.i/1951031.b/lvoclpw.m Method

Quant Type: ISTD Meth Date: 31-Oct-1995 08:47 jimmy Cal Date : 31-OCT-1995 08:15 Cal File: 1304cc1.d QC Sample: METHSPIKE

Als bottle: 5 Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					CONCENTRA	ATIONS		
	QUANT SIG				ON-COLUMN	FINAL		
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)		
		.==			======			
1 Chloromethane	50.00	1.592	1.598 (0.332)	61843	240	48		
2 Vinyl Chloride	62.00	1.699	1.696 (0.354)	64431	250	50		
3 Bromomethane	94.00	1.913	1.910 (0.398)	54117	260	51		
4 Chloroethane	64.00	2.002	2.008 (0.417)	35236	260	51		. 1
7 Trichlorofluoromethane	101.00	2.359	2.355 (0.491)	92305	250	51 (M)	JC	10/31/99
8 Acetone	58.00	2.359	2.346 (0.491)	9454	260	52 (M)	JC	' '
11 1,1-Dichloroethene	96.00	2.778	2.774 (0.579)	52176	240	48 (M)	JC	
13 Methylene Chloride	84.00	2.947	2.944 (0.614)	60312	260	51 (M)	JC	
M 18 1,2-Dichloroethene (total)	96.00			118406	510	100		
14 Carbon Disulfide	76.00	3.081	3.086 (0.642)	174250	260	53	_	
15 trans-1,2-Dichloroethene	96.00	3.446	3.443 (0.718)	52592	250	51 (M)	JC	
17 1,1-Dichloroethane	63.00	3.749	3.755 (0.781)	95755	260	52		
19 Vinyl Acetate	43.00	3.838	3.844 (0.799)	121900	200	41		
20 2-Butanone	43.00	4.222	4.218 (0.879)	48522	220	43		
21 cis-1,2-Dichloroethene	96.00	4.534	4.539 (0.944)	65814	250	50		
24 Chloroform	83.00	4.819	4.815 (1.004)	123699	250	50		
27 1,1,1-Trichloroethane	97.00	5.603	5.609 (0.858)	82712	290	58		
28 1,2-Dichloroethane	62.00	5.692	5.698 (1.186)	107020	250	50		
30 Benzene	78.00	6.058	6.054 (0.928)	215788	250	51		
31 Carbon Tetrachloride	117.00	6.076	6.081 (0.930)	81552	280	56		
34 1,2-Dichloropropane	63.00	7.056	7.053 (1.081)	54599	250	50		
35 Trichloroethene	130.00	7.083	7.089 (1.085)	70721	270	55		
37 Bromodichloromethane	83.00	7.279	7.276 (1.115)	90221	260	51		
39 2-Chloroethylvinylether	63.00	7.894	7.900 (1.209)	21673	260	51		
40 4-Methyl-2-Pentanone	43.00	8.135	8.131 (1.246)	60011	240	48		
41 cis-1,3-Dichloropropene	75.00	8.153	8.149 (1.248)	87525	250	49		
42 trans-1,3-Dichloropropene	75.00	8.786	8.782 (1.345)	87125	260	52		
44 Toluene	92.00	8.866	8.862 (0,827)	134790	250	50		
45 1,1,2-Trichloroethane	83.00	8.946	8.952 (1.370)	47110	260	51		

Data File: /chem/l.i/1951031.b/l304tll.d port Date: 31-Oct-1995 10:14

							CC	NCENTRA	ATIONS	
	•	QUANT SIG					ON-C	COLUMN	FINAL	
compo	punds	MASS	RT	EXP RT	REL RT	RESPONSE	(	ng)	( ug/L)	
		====	==	=====		******	===		======	
4.6	2-Hexanone	43.00	9.347	9.344	(0.872)	52743		240	47	
47	Dibromochloromethane	129.00	9.570	9.567	(1.465)	76146		260	52	
49	Tetrachloroethene	164.00	9.918	9.923	(0.925)	61662		250	50	
52	2 Chlorobenzene	112.00	10.764	10.761	(1.004)	155805		250	51	
53	3 Xylene (Total)	106.00				284976		750	150	
54	Ethylbenzene	106.00	11.068	11.073	(1.032)	72531		250	50	
55	5 m,p-Xylene(s)	106.00	11.237	11.242	(1.048)	190126		500	100	
56	5 Bromoform	173.00	11.647	11.644	(1.086)	60919		250	50	
57	7 Styrene	104.00	11.700	11.706	(1.091)	143103		250	49	
59	o-Xylene	106.00	11.763	11.759	(1.097)	94850		240	49	
60	1,1,2,2-Tetrachloroethane	83.00	12.110	12.107	(1.130)	70906		240	49	
23	Bromochloromethane	128.00	4.801	4.798	(1.000)	41952		250		
* 32	2 1,4-Difluorobenzene	114.00	6.530	6.527	(1.000)	176352		250		
50	Chlorobenzene-d5	117.00	10.720	10.716	(1.000)	152539		250		
26	1,2-Dichloroethane-d4	102.00	5.585	5.582	(1.163)	14285		230	46	
5 43	3 Toluene-d8	98.00	8.759	8.764	(0.817)	189793		240	49	
\$ 6	1 Bromofluorobenzene	95.00	12.396	12.401	(1.156)	75438		250	50	

QC Flag Legend

- Compound response manually integrated.

Data File: /chem/l.i/1951031.b/l304tl1.d

Report Date: 31-Oct-1995 10:14

#### SPL Labs

# INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1304tl1.d Lab Smp Id: LCS

Analysis Type: VOA Quant Type: ISTD

Operator: JC Method File: /chem/l.i/1951031.b/lvoclpw.m Misc Info: L304W1//L304CC1

Calibration	Date:	10/31/95
Calibration	Time:	0815

Level: LOW

Sample Type: WATER

23 Bromodifforomethane 200390 100195 400780 176352 -12.00	COMPOUND  ===================================		LOWER ======= 23068 100195	1 731.11		% DIFF ====== -9.07 -12.00 -8.69
-----------------------------------------------------------	-----------------------------------------------	--	-------------------------------------	----------	--	----------------------------------------------

COMPOUND  23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	STANDARD ===================================	LOWER ======= 4.30 6.03	LIMIT   UPPER ======= 5.30 7.03 11.22	SAMPLE ======= 4.80 6.53 10.72	% DIFF ====== 0.07 0.05 0.03
----------------------------------------------------------------------------	-------------------------------------------------	----------------------------------	------------------------------------------------------	--------------------------------------------	------------------------------------------

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/l.i/1951031.b/l304tll.d Date : 31-DCT-1995 09:36 Client ID:

Sample Info: METHSPIKE-8240W/1X Purge Volume: 5.0 Column phase: 30m,hp5ms,0,25u df

Operator: JC Column diameter:

Instrument: 1.i

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Data File: /chem/l.i/1951031.b/l304td1.d

Report Date: 31-Oct-1995 10:34

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951031.b/l304td1.d

Lab Smp Id: LCSD

Inj Date : 31-OCT-1995 10:02

Operator : JC Inst ID: 1.i

Smp Info : METHSPIKEDUP-8240W/1X Misc Info : L304W1/L304TL1/L304CC1

Comment

Method : /chem/1.i/1951031.b/lvoclpw.m

Meth Date : 31-Oct-1995 08:47 jimmy Quant Type: ISTD

Cal Date : 31-OCT-1995 08:15 Cal File: 1304cc1.d Als bottle: 6 QC Sample: METHSPIKE

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

					CONCENTRA	ATIONS
Compounds	QUANT SIG				ON-COLUMN	FINAL
=======================================	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	E 2 2 2	==		=======	****	======
1 Chloromethane	50.00	1.600	1.598 (0.333)	61920	230	47
2 Vinyl Chloride	62.00	1.698	1.696 (0.354)	63907	240	48
3 Bromomethane	94.00	1.912	1.910 (0.398)	53974	250	50
4 Chloroethane	64.00	2.001	2.008 (0.417)	35413	250	50 (M) JC
7 Trichlorofluoromethane	101.00	2.357	2.355 (0.491)	87142	230	47 (M) JC
8 Acetone	58.00	2.357	2.346 (0.491)	9529	250	51 (M) JC
11 1,1-Dichloroethene	96.00	2.776	2.774 (0.578)	51516	230	46 (M) TC
13 Methylene Chloride	84.00	2.928	2.944 (0.610)	58898	240	4.5 (5.1)
18 1,2-Dichloroethene (total)	96.00			115172	480	48 (M) JC 96
14 Carbon Disulfide	76.00	3.079	3.086 (0.642)	160487	240	48
15 trans-1,2-Dichloroethene	96.00	3.454	3.443 (0.720)	50793	240	48 (M) JC
17 1,1-Dichloroethane	63.00	3.748	3.755 (0.781)	99221	260	53
19 Vinyl Acetate	43.00	3.846	3.844 (0.801)	120278	200	39
20 2-Butanone	43.00	4.211	4.218 (0.877)	52486	230	46
21 cis-1,2-Dichloroethene	96.00	4.541	4.539 (0.946)	64379	240	48
24 Chloroform	83.00	4.818	4.815 (1.004)	120450	240	
27 1,1,1-Trichloroethane	97.00	5.611	5.609 (0.859)	80225	280	48
28 1,2-Dichloroethane	62.00	5.700	5.698 (1.188)	107396		55
30 Benzene	78.00	6.057	6.054 (0.928)	213689	250	49
31 Carbon Tetrachloride	117.00	6.083	6.081 (0.932)	78911	240	49
34 1,2-Dichloropropane	63.00	7.055	7.053 (1.081)		270	54
35 Trichloroethene	130.00	7.082	7.089 (1.085)	54046	240	49
37 Bromodichloromethane	83.00	7.278	7.276 (1.115)	68106	260	52
39 2-Chloroethylvinylether	63.00	7.902	7.900 (1.210)	88899	250	49
40 4-Methyl-2-Pentanone	43.00	8.134	8.131 (1.246)	22837	260	53
41 cis-1,3-Dichloropropene	75.00	8.151		60013	240	47
42 trans-1,3-Dichloropropene	75.00	8.784	8.149 (1.248)	86317	240	48
44 Toluene	92.00		8.782 (1.345)	85445	250	49
45 1,1,2-Trichloroethane	83.00	8.864	8.862 (0.827)	132820	240	48
	63.00	8.954	8.952 (1.371)	46770	250	50

Data File: /chem/l.i/l951031.b/l304td1.d Report Date: 31-Oct-1995 10:34

					CONCENTR	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT REL	RT RESPONSE	( ng)	( ug/L)
· · · · · · · · · · · · · · · · · · ·	素与素素	***	****		****	======
46 2-Hexanone	43.00	9.346	9.344 (0.8	72) 52779	230	47
47 Dibromochloromethane	129.00	9.569	9.567 (1.4)	66) 75432	250	50
49 Tetrachloroethene	164.00	9.925	9.923 (0.9	26) 61619	250	50
52 Chlorobenzene	112.00	10.763	10.761 (1.00	04) 150830	240	49
53 Xylene (Total)	106.00			279737	730	140
54 Ethylbenzene	106.00	11.075	11.073 (1.03	33) 70889	240	48
55 m,p-Xylene(s)	106.00	11.245	11.242 (1.04	<del>-</del>	490	98
56 Bromoform	173.00	11.646	11.644 (1.08		250	49
57 Styrene	104.00	11.708	11.706 (1.09		240	48
59 o-Xylene	106.00	11.762	11.759 (1.09		240	48
60 1,1,2,2-Tetrachloroethane	83.00	12.109	12.107 (1.13		250	50
23 Bromochloromethane	128.00	4.800	4.798 (1.00		250	50
32 1,4-Difluorobenzene	114.00	6.529	6.527 (1.00		250	
50 Chlorobenzene-d5	117.00	10.719	10.716 (1.00		250 250	
26 1,2-Dichloroethane-d4	102.00	5.584	5.582 (1.16		250	40
43 Toluene-d8	98.00	8.766	8.764 (0.81	,	250 250	49
61 Bromofluorobenzene	95.00	12.394	12.401 (1.15		250 240	49 48

QC Flag Legend

<sup>-</sup> Compound response manually integrated.

Data File: /chem/l.i/1951031.b/l304td1.d

Report Date: 31-Oct-1995 10:34

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1304td1.d Lab Smp Id: LCSD

Analysis Type: VOA Quant Type: ISTD

Operator: JC

Method File: /chem/l.i/1951031.b/lvoclpw.m

Misc Info: L304W1/L304TL1/L304CC1

Calibration Date: 10/31/95 Calibration Time: 0815

Level: LOW

Sample Type: WATER

		AREA	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	===========	=======	======
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	46135 200390 167061	i i	92270 400780 334122	43038 180163 153852	-6.71 -10.09 -7.91
	l				l l

	•	RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
=======================================	=======	=======	=======	=======	======
23 Bromochloromethane	4.80	4.30	5.30	4.80	0.04
32 1,4-Difluorobenzene	6.53	6.03	7.03	6.53	0.03
50 Chlorobenzene-d5	10.72	10.22	11.22	10.72	0.02

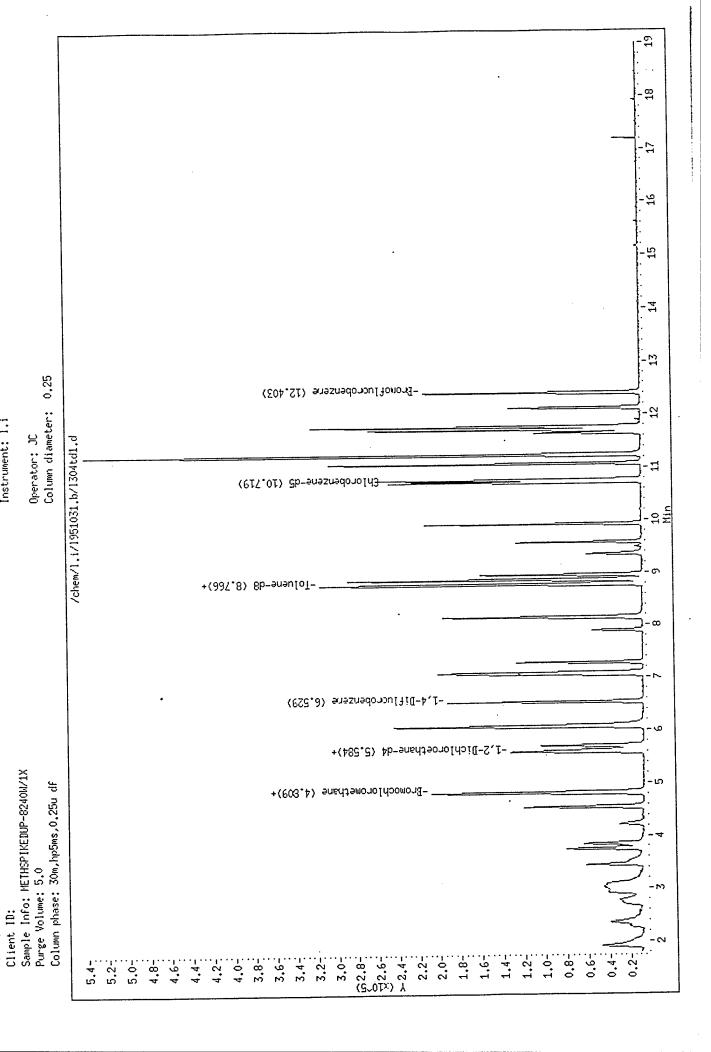
AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT =  $\pm$  0.50 minutes of internal standard RT. RT LOWER LIMIT =  $\pm$  0.50 minutes of internal standard RT.

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Instrument: 1.i

Data File: /chem/l.i/1951031.b/1304tdl.d Date : 31-0CT-1995 10:02



Data File: /chem/l.i/1951027.b/1300k01.d

Report Date: 06-Nov-1995 15:27

## SPL Labs

### Volatiles by 624/8240

Data file : /chem/l.i/1951027.b/l300k01.d

Client Smp ID: LATONIA MWA15MS Lab Smp Id: 9510B57-07D

Inj Date : 27-OCT-1995 16:43

Inst ID: 1.i

Operator : JC Smp Info : 9510B57-07D-8240W/1X Misc Info : L300W1/L300S11/L300CC1

Comment

: /chem/l.i/1951027.b/lvoclpw.m Method

Quant Type: ISTD Meth Date: 06-Nov-1995 15:25 jimmy Cal File: 1300cc1.d Cal Date : 27-OCT-1995 07:22

QC Sample: MS Als bottle: 21

Dil Factor: 1.000

Compound Sublist: normal.sub Integrator: HP RTE

Target Version: 3.10

					CONCENTRA	ATIONS
	QUANT SIG				ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	<b>===</b>	==		======	**=====	*****
1 Chloromethane	50.00	1.660	1.663 (0.334)	130172	310	63
2 Vinyl Chloride	62.00	1.767	1.761 (0.355)	95059	230	47
3 Bromomethane	94.00	1.990	1.984 (0.400)	72523	240	48
4 Chloroethane	64.00	2.070	2.064 (0.416)	51362	230	46
7 Trichlorofluoromethane	101.00	2.426	2.421 (0.488)	83093	190	38
11 1,1-Dichloroethene	96.00	2.845	2.849 (0.572)	75714	240	48
13 Methylene Chloride	84.00	3.059	3.045 (0.615)	86249	240	48
M 18 1,2-Dichloroethene (total)	96.00			174604	470	94
14 Carbon Disulfide	76.00	3.175	3.179 (0.638)	265963	240	48
15 trans-1,2-Dichloroethene	96.00	3.603	3.598 (0.724)	76846	230	47
17 1,1-Dichloroethane	63.00	3.915	3.910 (0.787)	140500	250	50
19 Vinyl Acetate	43.00	4.004	4.008 (0.805)	447439	470	94
21 cis-1,2-Dichloroethene	96.00	4.717	4.712 (0.948)	97758	240	47
24 Chloroform	83.00	4.994	4.988 (1.004)	164184	240	48
27 1,1,1-Trichloroethane	97.00	5.787	5.773 (0.864)	112727	230	47
28 1,2-Dichloroethane	62.00	5.867	5.862 (1.179)	139558	250	50
30 Benzene	78.00	6.224	6.218 (0.929)	455353	330	67
31 Carbon Tetrachloride	117.00	6.250	6.245 (0.933)	94998	230	45
34 1,2-Dichloropropane	63.00	7.213	7.217 (1.077)	84317	250	51
35 Trichloroethene	130.00	7.249	7.243 (1.083)	96183	250	50
37 Bromodichloromethane	83.00	7.436	7.440 (1.110)	122758	250	49
40 4-Methyl-2-Pentanone	43.00	8.283	8.286 (1.237)	107473	220	43
41 cis-1,3-Dichloropropene	75.00	8.310	8.304 (1.241)	133044	240	49
42 trans-1,3-Dichloropropene	75.00	8.934	8.937 (1.334)	121191	240	48
44 Toluene	92.00	9.023	9.017 (0.830)	209338	260	51
45 1,1,2-Trichloroethane	83.00	9.103	9.098 (1.359)	68341	260	51
46 2-Hexanone	43.00	9.486	9.490 (0.873)	66137	150	30
47 Dibromochloromethane	129.00	9.727	9.722 (1.453)	98727	250	50
49 Tetrachloroethene	164.00	10.075	10.069 (0.927)	83998	240	49

Data File: /chem/l.i/1951027.b/l300k01.d Report Date: 06-Nov-1995 15:27

								CC	NCENTRA	TIONS.	
			QUANT SIG					ON-C	COLUMN	FINAL	
-Co	mpo	unds	MASS	RT	EXP RT	REL RT	RESPONSE	(	ng)	( ug/L)	
==		********	**==	==	=====	E2====		===	****	======	
	52	Chlorobenzene	112.00	10.912	10.916	(1.004)	222301		250	50	
1	53	Xylene (Total)	106.00				406826		730	140	
	54	Ethylbenzene	106.00	11.216	11.219	(1.032)	123715		280	55	•
•	55	m,p-Xylene(s)	106.00	11.385	11.388	(1.048)	273451		480	97	
	56	Bromoform	173.00	11.795	11.798	(1.085)	80522		260	52	
-	57	Styrene	104.00	11.848	11.852	(1.090)	219746		240	49	
	59	o-Xylene	106.00	11.911	11.905	(1.096)	133375		240	48	
	60	1,1,2,2-Tetrachloroethane	83.00	12.258	12.253	(1.128)	109436		270	54	
	23	Bromochloromethane	128.00	4.976	4.970	(1.000)	55837		250		
*	32	1,4-Difluorobenzene	114.00	6.696	6.691	(1.000)	270767		250		
ł	50	Chlorobenzene-d5	117.00	10.868	10.871	(1.000)	219006		250		
5	26	1,2-Dichloroethane-d4	102.00	5.751	5.746	(1.156)	21729		250	50	
\$	43	Toluene-d8	98.00	8.916	8.919	(0.820)	285282		250	50	
\$	61	Bromofluorobenzene	95.00	12.544	12.547	(1.154)	111694		260	52	

Data File: /chem/l.i/1951027.b/l300k01.d

Report Date: 01-Nov-1995 13:00

#### SPL Labs

#### INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1300k01.d Lab Smp Id: 9510B57-07D Analysis Type: VOA Quant Type: ISTD

Operator: JC

Method File: /chem/l.i/1951027.b/lvoclpw.m Misc Info: L300W1/L300S11/L300CC1

Calibration Date: 10/27/95 Calibration Time: 0722

Client Smp ID: LATONIA MWA15MS

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Level: LOW

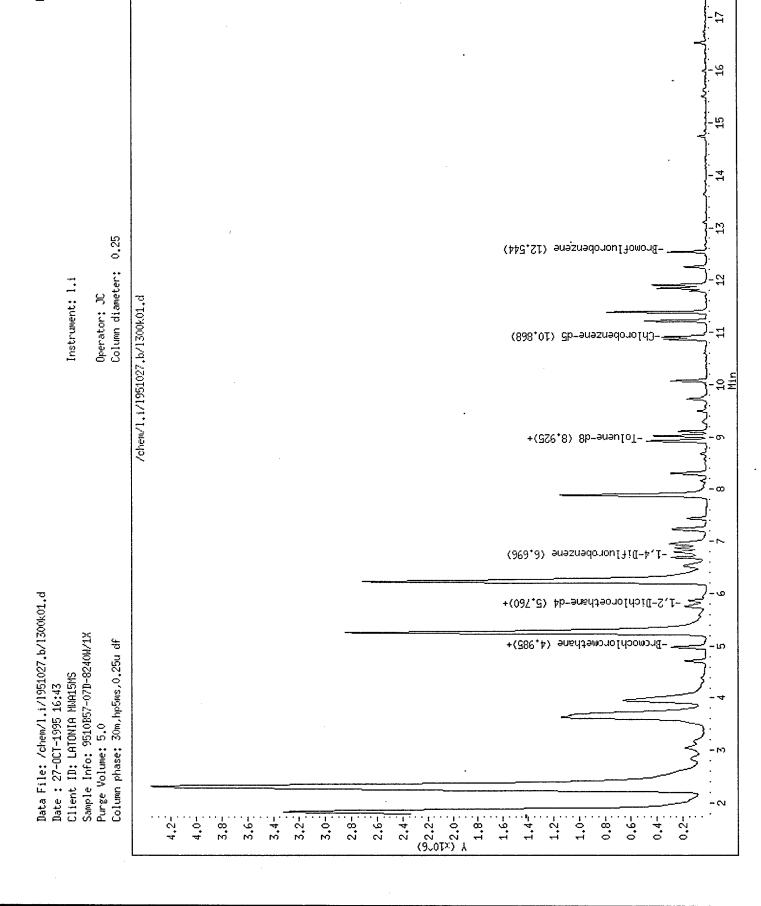
Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	58283 .290820 237048	29142 145410 118524		270767	-6.90

·		RT	LIMIT		
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
	=======	=======	=======	=======	======
23 Bromochloromethane	4.97	4.47	5.47	4.98	0.11
32 1,4-Difluorobenzene	6.69	6.19	7.19	6.70	0.08
50 Chlorobenzene-d5	10.87	10.37	11.37	10.87	-0.03

AREA UPPER LIMIT = +100% of internal standard area. AREA LOWER LIMIT = -50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT. RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



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Data File: /chem/l.i/1951027.b/l300kd1.d

Report Date: 06-Nov-1995 15:27

#### SPL Labs

Volatiles by 624/8240

Data file : /chem/l.i/1951027.b/1300kd1.d

Lab Smp Id: 9510B57-08D Client Smp ID: LATONIA MWA15MSD

Inj Date : 27-OCT-1995 17:13

Operator : JC Inst ID: 1.i

Smp Info : 9510B57-08D-8240W/1X
Misc Info : L300W1/L300K01/L300CC1

Comment

Method : /chem/l.i/1951027.b/lvoclpw.m

Meth Date: 06-Nov-1995 15:25 jimmy Quant Type: ISTD Cal Date: 27-OCT-1995 07:22 Cal File: 1300cc1.d

Als bottle: 22 QC Sample: MSD

Dil Factor: 1.000

Integrator: HP RTE Compound Sublist: normal.sub

Target Version: 3.10

						CONCENTR	ATIONS
C		QUANT SIG				ON-COLUMN	FINAL
Compou		MASS	RT	EXP RT REL RT	RESPONSE	( ng)	( ug/L)
	****	====	==	=======================================	======	======	======
	Chloromethane	50.00	1.659	1.663 (0.334)	119309	300	59
	Vinyl Chloride	62.00	1.766	1.761 (0.355)	92215	230	47
	Bromomethane	94.00	1.989	1.984 (0.400)	69562	240	47
	Chloroethane	64.00	2.061	2.064 (0.414)	50487	240	47
	Trichlorofluoromethane	101.00	2.417	2.421 (0.486)	75367	180	35
	1,1-Dichloroethene	96.00	2.845	2.849 (0.572)	71695	240	47
	Methylene Chloride	84.00	3.050	3.045 (0.613)	81555	230	47
	1,2-Dichloroethene (total)	96.00			171630	480	95
14 (	Carbon Disulfide	76.00	3.184	3.179 (0.640)	256082	240	47
15 t	trans-1,2-Dichloroethene	96.00	3.603	3.598 (0.724)	75661	240	47
17 1	1,1-Dichloroethane	63.00	3.915	3.910 (0.787)	137005	250	50
19 \	Vinyl Acetate	43.00	4.004	4.008 (0.805)	283591	310	62
20 2	2-Butanone	43.00	4.387	4.382 (0.882)	51276	140	29
21 0	cis-1,2-Dichloroethene	96.00	4.708	4.712 (0.946)	95969	240	48
24 (	Chloroform	83.00	4.993	4.988 (1.004)	160760	240	49
27 1	1,1,1-Trichloroethane	97.00	5.778	5.773 (0.864)	111186	230	47
28 1	1,2-Dichloroethane	62.00	5.867	5.862 (1.179)	136430	250	50
30 F	Benzene	78.00	6.223	6.218 (0.931)	446744	330	66
31 (	Carbon Tetrachloride	117.00	6.250	6.245 (0.935)	92786	220	45
34 1	1,2-Dichloropropane	63.00	7.213	7.217 (1.079)	82585	250	50
35 T	Trichloroethene	130.00	7.248	7.243 (1.084)	93583	240	49
. 37 P	Bromodichloromethane	83.00	7.436	7.440 (1.112)	120533	240	49
40 4	I-Methyl-2-Pentanone	43.00	8.283	8.286 (1.239)	105215	210	42
41 c	cis-1,3-Dichloropropene	75.00	8.309	8.304 (1.243)	127511	240	
42 t	rans-1,3-Dichloropropene	75.00	8.933	8.937 (1.336)		240	47
44 T	<b>Toluene</b>	92.00	9.022	9.017 (0.830)	203234		. 48
45 1	1,1,2-Trichloroethane	83.00	9.103	9.098 (1.361)	66928	250 250	50
46 2	?-Hexanone	43.00	9.495	9.490 (0.874)	64736		50
47 D	Dibromochloromethane	129.00	9.727	9.722 (1,455)	95878	150 250	29 49

Data File: /chem/l.i/1951027.b/l300kd1.d Peport Date: 06-Nov-1995 15:27

							CONCENTR	ATIONS
		QUANT SIG					ON-COLUMN	FINAL
npot	unds	MASS	RT	EXP RT R	EL RT	RESPONSE	( ng)	( ug/L)
		30 30 50 W		*****		******		
49	Tetrachloroethene	164.00	10.074	10.069 (	0.927)	79786	230	47
52	Chlorobenzene	112.00	10.912	10.916 (1	1.004)	216667	240	49
M 53	Xylene (Total)	106.00				394889	710	140
54	Ethylbenzene	106.00	11.224	11.219 (	1.033)	118618	270	53
55	m,p-Xylene(s)	106.00	11.385	11.388 (	1.048)	263022	470	94
56	Bromoform	173.00	11.795	11.798 (1	1.085)	79104	260	52
57	Styrene	104.00	11.848	11.852 (1	1.090)	209753	240	47
59	o-Xylene	106.00	11.910	11.905 (	1.096)	131867	240	48
60	1,1,2,2-Tetrachloroethane	83.00	12.258	12.253 (	1.128)	108276	270	54
* 23	Bromochloromethane	128.00	4.975	4.970 (	1.000)	54259	250	
32	1,4-Difluorobenzene	114.00	6.687	6.691 (	1.000)	268073	250	
150	Chlorobenzene-d5	117.00	10.868	10.871 (	1.000)	216838	250	
\$ 26	1,2-Dichloroethane-d4	102.00	5.751	5.746 (	1.156)	21170	250	50
\$ 43	Toluene-d8	98.00	8.915	8.919 (	0.820)	281066	250	49
61	Bromofluorobenzene	95.00	12.543	12.547 (	1.154)	106144	250	50

Data File: /chem/l.i/1951027.b/1300kd1.d

Report Date: 01-Nov-1995 13:00

#### SPL Labs

## INTERNAL STANDARD COMPOUNDS AREA AND RT SUMMARY

Instrument ID: 1.i

Lab File ID: 1300kd1.d Lab Smp Id: 9510B57-08D

Analysis Type: VOA Quant Type: ISTD

Operator: JC

Method File: /chem/l.i/1951027.b/lvoclpw.m

Misc Info: L300W1/L300K01/L300CC1

Calibration Date: 10/27/95 Calibration Time: 0722

Client Smp ID: LATONIA MWA15MSD

Level: LOW

Sample Type: WATER

COMPOUND	STANDARD	AREA LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	58283	29142	116566	54259	-6.90
	290820	145410	581640	268073	-7.82
	237048	118524	474096	216838	-8.53

COMPOUND	STANDARD	RT LOWER	LIMIT UPPER	SAMPLE	% DIFF
23 Bromochloromethane 32 1,4-Difluorobenzene 50 Chlorobenzene-d5	4.97	4.47	5.47	4.98	0.10
	6.69	6.19	7.19	6.69	-0.06
	10.87	10.37	11.37	10.87	-0.04

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

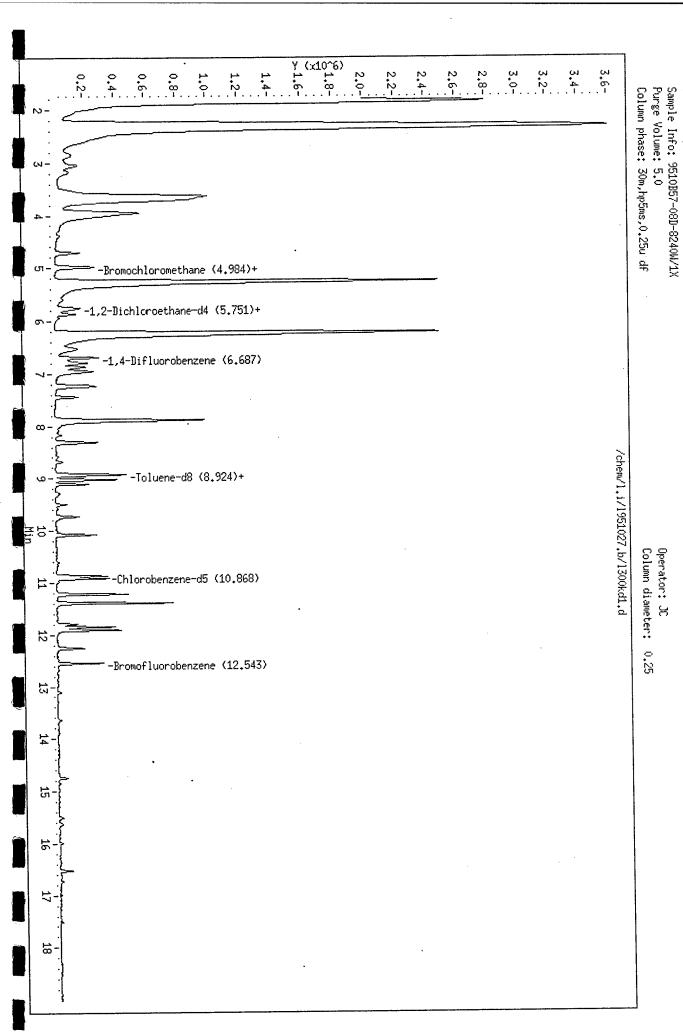
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: /chem/1.i/1951027.b/1300kd1.d Date : 27-OCT-1995 17:13

Client ID: LATONIA MWA15MSD

Instrument: 1.i





BATCH QUALITY CONTROL REPORT \*\*
Wisconsin DNR Modified DRO

PAGE HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix: Units: Aqueous mg/L Batch Id: HPTT951103081500

#### LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Diesel Range Organics	ND	5.0	4.25	85.0	50 - 150

#### MATRIX SPIKES

S P I K E C O M P O U N D S	Sample Results	Spike Added	Matrix	Spike	Matrix Duplic	Spike	MS/MSD Relative %		Limits(***) (Advisory)
	<2>	<3>	Result	Recovery	Result	Recovery <5>	Difference	RPD Max.	Recovery Range
DIESEL RANGE ORGANICS	0.26	5.0	4.89	92.6	4.95	93.8	1.29	43	20 - 177

Analyst: SEG

Sequence Date: 11/02/95

SPL ID of sample spiked: 9510B34-02B

Sample File ID: T\_\_\_874.TX0

Method Blank File ID:

Blank Spike File ID: T\_\_\_883.TX0

Matrix Spike File ID: T\_\_\_875.TX0

Matrix Spike Duplicate File ID: T\_\_876.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3> ) x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x 100

(\*\*) = Source: SPL-Temporary Limits

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH (SPL ID):

9510C10-01B

gc Officer



BATCH QUALITY CONTROL REPORT \*\* Modified 8015 - Gasoline

PAGE HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

Matrix: Units:

Aqueous mg/L

Batch Id: HP\_S951103121410

# LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Petr. Hydrocarbon	ND	1.0	0.93	93.0	56 - 139

# MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results	Spike Added	Matrix	Spike	Matrix Dupli	Spike cate	MS/MSD Relative *		Limits(***) (Advisory)
	<2>	<3>	Result	Recovery	Result	Recovery	Difference		Recovery Range
GASOLINE PETR. HYDROCARBON	ND	0.9	0.56	62.2	0.57	63.3	1.75	18	40 - 158

Analyst: VHZ

Sequence Date: 11/02/95

SPL ID of sample spiked: 9510D68-01A

Sample File ID: S\_\_\_733.TX0

Method Blank File ID:

Blank Spike File ID: S\_\_\_725.TX0

Matrix Spike File ID: S\_\_\_728.TX0

Matrix Spike Duplicate File ID: S\_\_\_729.TX0

\* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

LCS % Recovery = (<1> / <3> ) x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>)] x 0.5] x 100

(\*\*) = Source: SPL Historical data

(\*\*\*) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH (SPL ID):

9511011-01A 9511011-02A 9511013-01A 9511013-02A

9511014-01A 9511014-02A 9511035-01A 9510C27-20A

9510C10-01C 9511036-01A





8B80 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# \*\* SPL QUALITY CONTROL REPORT \*\*

Matrix:

Aqueous

Reported on:

11/07/95

Analyzed on:

11/07/95

Analyst:

JM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Lead, Total METHOD 6010 \*\*\*

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery	
LCS	ND	2.00	1.96	98.0	80 - 120	

-9511189

Samples in batch:

9510C10-01D

## COMMENTS:

LCS=SPL ID#: 94-452-15-1

94-452-15-2

94-452-14-24

Cyllus chilue

QC Officer



#### HOUSTON LABORATORY

8880 INTERCHANGE DRIVE HOUSTON, TEXAS 77054 PHONE (713) 660-0901

# SPL QUALITY CONTROL REPORT \*\*

Matrix: Aqueous Reported on: 11/07/95 Analyzed on: 11/07/95

Analyst:

JM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Lead, Total METHOD 6010 \*\*\*

SPL Sample ID Number	Blank Value   mg/L	Amt Added mg/L	Matrix Spike Recovery	Matrix Spike Duplicate Recovery %	Relative Percent Difference	7.1	Limit: covery		RPD Max.
9510628-04E	ND	1.00	100	99.0	1.0	80	-	120	20

-9511189

Samples in batch:

9510C10-01D

COMMENTS:

Work Order 9510628-04E is QA/QC only.

W0:9510C10

```
Method File Name: Mix5
                                  Replicates:3
                                                         Read Delay: 60
Remarks: Routine Analysis
                                                         Data File: 11078
Internal Standard element is Y
STANDARD #1
                              REPLICATE #1
                                                          1117 11/07/95
              Cr
                      \mathsf{E}\,\mathsf{M}
                             8528
              pb5
                       ΕM
                            15877
                       ΕM
                            14417
STANDARD
               #1
                              REPLICATE #2
              Cr
                       ΕM
                             8695
              pb5
                       EM
                            16362
                       EM
                            14191
STANDARD
               # 1
                              REPLICATE
                                                 #3
              Cr
                       ΕM
                             8571
                            16505
              pb5
                       ΕM
              Υ
                       EM
                            14097
              Cr
                       A۷
                            8598.0
                                    SD
                                          86.7
                                                 CV
                                                        1.0 CONC
                                                                    5.000
                            16248.0
              pb5
                       A۷
                                    SD
                                          329.2
                                                CV
                                                        2.0 CONC
                                                                    5.000
                            14235.0
                       A۷
                                    SD
                                          164.5
                                                CΥ
                                                        1.2
BLANK
                              REPLICATE
                                                 #1
                                                          1121 11/07/95
                       EM
              Cr
                               4
                               49
              pb5
                       ΕM
```

PLASMA 400 Analysis Ver. 4.10 Tue 11/07/95 - 11:15:28

	Y	EM	13843				
BLANK	Cr pb5 Y	E M E M E M	REF -4 31 13752	LICATE	#2		
BLANK	Cr pb5 Y	E M E M E M	REP 0 -21 14226	LICATE	#3		
	Cr pb5 Y	A V A V A V	0.0 19.7 13940.3	SD 4.0 SD 36.4 SD 251.5	CV	0.0 CONC 184.8 CONC 1.8 CONC	0.000 0.000 0
SAMPLE	# <b>1</b> Cr pb5 Y	EM	REP 1.980 2.024 14164	LICATE	#1	1125 11/	07/95
SAMPLE	# 1 Cr pb5 Y	EM`	REP 2.001 1.950 14303	LICATE	#2		
SAMPLE	# 1 Cr pb5 Y	EM	REP 2.000 1.985 14142	LICATE	#3		
	Cr pb5 Y	A V A V A V	1.993 1.986 14203.0	SD 0.0121 SD 0.0370 SD 87.3	C V C V	0.61 1.86 0.6 JW	
SAMPLE	# 2 Cr pb5 Y	ЕМ	REP 0.001 0.013 14110	LICATE	# <b>1</b>	1129 11/0 k-noisy	07/95
SAMPLE	# 2 Cr pb5 Y	E M	REP 0.004 0.004 14282	LICATE	#2		
SAMPLE	# 2 Cr pb5 Y	EM	REPL 0.005 0.045 14295	_ICATE	#3 win pea	dow-edge k-noisy	
	Cr pb5 Y	A V A V A V	0.021	SD 0.0022 SD 0.0218 SD 103.3		70.79 05.41 JB 0.7	
SAMPLE	#3 Cr pb5 Y	ΕM	REPL 0.029 0.031 12872	CATE	#1 Wind Wind	1133 11/0 dow-edge dow-edge	7/95
SAMPLE	#3 Cr pb5 Y	ΕM	REPL 0.011 -0.027 12886	ICATE		<-noisy dow-edge	
SAMPLE	#3		REPL	ICATE	#3	•	

	Cr pb5 Y	EM	0.026 -0.028 window-edge 12946
	Cr pb5 Y	A V A V A V	0.022 SD 0.0097 CV 44.10 -0.008 SD 0.0333 CV 424.66 TESAT 12901.3 SD 39.3 CV 0.3
SAMPLE	# 4 Cr pb5 Y	<b>E</b> M	REPLICATE #1 1138 11/07/95 0.501 1.078 12971
SAMPLE	# 4 Cr pb5 Y	ΕM	REPLICATE #2 0.491 0.997 13022
SAMPLE	# 4 Cr pb5 Y	ЕМ	REPLICATE #3 0.501 1.012 13034
	Cr pb5 Y	A V A V A V	0.498 SD 0.0056 CV 1.12 1.029 SD 0.0431 CV 4.19 ICSABI 13009.0 SD 33.5 CV 0.3
SAMPLE	# 5 Cr pb5 Y	ΕM	REPLICATE #1 1142 11/07/95 0.009 peak-noisy 0.016 peak-noisy 13560
SAMPLE	# 5 Cr pb5 Y	ΕM	REPLICATE #2 0.005 peak-noisy 0.023 peak-noisy 13709
SAMPLE	#5 Cr pb5 Y	ΕM	REPLICATE #3 0.010 window-edge 0.020 peak-noisy 13810
,	Cr pb5 Y	- AV AV AV	0.008 SD 0.0022 CV 27.52 0.020 SD 0.0034 CV 17.22 PBLANK-1 11/2 13693.0 SD 125.8 CV 0.9 P3010L
SAMPLE	#6 Cr pb5 Y	EM	REPLICATE #1 1146 11/07/95 2.096 1.999 14310
SAMPLE	#6 Cr pb5 Y	EM	REPLICATE #2 2.142 1.944 14327
SAMPLE	#6 Cr pb5 Y	ΕM	REPLICATE #3 2.194 1.951 14052
	Cr pb5 Y	A V A V A V	2.144 SD 0.0493 CV 2.30 1.965 SD 0.0302 CV 1.54 LC5W-1 14229.7 SD 154.1 CV 1.1
SAMPLE	#7		REPLICATE #1 1150 11/07/95

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Į	Cr pb5 Y	ЕМ	0.025 0.010 13735		, ре	eak-noisy
SAMPLE	# 7 Cr pb5 Y	EM	REPL 0.023 0.033 13514	ICATE	#2	
SAMPLE	# 7 Cr pb5 Y	EΜ	REPL 0.029 0.001 13824	ICATE	#3	201 201 [10/21 FY]
- 1	Cr pb5 Y	A V A V A V	0.026 SI 0.015 SI 13691.0 SI	0.0164	C V C V	10.72 110.01 4510013-1A- m
SAMPLE	# 8 Cr pb5 Y	EM	REPL 0.048 -0.001 14447	ICATE	# <b>1</b>	1154 11/07/95 eak-noisy
SAMPLE	# 8 Cr pb5 Y	EM	REPL 0.054 0.020 14207	ICATE	#2 wi	indow-edge
SAMPLE	# 8 Cr pb5 Y	ΕM	REPL 0.053 0.033 14255	ICATE	#3	eak-noisy
1	Cr pb5 Y	A V A V A V	0.052 SI 0.017 SI 14303.0 SI	0.0168	C V C V	6.80 [01] 10/31 EXT 96.79 9510013-14 (25/50) QC only
SAMPLE	#9 Cr pb5 Y	ΕM	REPL 1.066 0.977 13646	ICATE	#1	1158 11/07/95
SAMPLE	# 9 Cr pb5 Y	- EM	REPL 1.102 0.964 13566	ICATE	#2	
SAMPLE	# 9 Cr pb5 Y	EM	REPL 1.069 0.987 13933	ICATE	#3	( , )
	Cr pb5 Y	A V A V A V	1.079 St 0.976 St 13715.0 St	0.0117	CV CV	1.86 1.19 9510513-1A SPK
SAMPLE	#10 Cr pb5 Y	EM	REPL 1.058 0.915 13722	ICATE	#1	1203 11/07/95
SAMPLE	#10 Cr pb5 Y	ΕM	REPL 1.084 0.971 13811	ICATE	#2	

SAMPLE	# 1 O Cr pb5 Y	EM	REPLICATE #3 1.091 0.980 13614	
	Cr pb5 Y	A V A V A V	1.078 SD 0.0173 CV 1.61 (25/50) 0.955 SD 0.0349 CV 3.65 13715.7 SD 98.7 CV 0.7 95/00/3-1Aspkdu	φ
SAMPLE	# 1 1 Cr pb5 Y	EM	REPLICATE #1 1207 11/07/95 0.185 0.585 14351	
SAMPLE	# 1 1 Cr pb5 Y	EM	REPLICATE #2 0.183 0.596 14352	
SAMPLE	# 1 1 Cr pb5 Y	EM	REPLICATE #3 0.178 0.612 14156 0.182 SD 0.0036 CV 2.00 (25/50)	
: : :	Cr pb5 Y	A V A V A V	0.182 SD 0.0036 CV 2.00 (25/50) 0.598 SD 0.0138 CV 2.31 95/DDD-2A 14286.3 SD 112.9 CV 0.8 95/DDD-2A	
SAMPLE	#12 Cr pb5 Y	EΜ	REPLICATE #1 1211 11/07/95 -0.001 0.012 window-edge 14216	
SAMPLE	<b>#12</b> Cr pb5 Y	ΕM	REPLICATE #2 -0.000 peak-noisy 0.014 peak-noisy 14251	
SAMPLE	#12 Cr pb5 Y	EM.	REPLICATE #3 -0.000 0.009 peak-noisy 14290	
•	Cr pb5 Y	A V A V ~ A V	-0.000 SD 0.0003 CV 173.12 0.011 SD 0.0023 CV 20.68 9510628-4E 14252.3 SD 37.0 CV 0.3 October	
SAMPLE	#13 Cr pb5 Y	EM	REPLICATE #1 1215 11/07/95 1.083 1.020 14034	
SAMPLE	#13 Cr pb5 Y	EM	REPLICATE #2 1.061 0.957 14369	•
SAMPLE	#13 Cr pb5 Y	ΕM	REPLICATE #3 1.115 1.019 14290	
	Cr pb5 Y	A V A V A V	1.086 SD 0.0274 CV 2.52 0.998 SD 0.0360 CV 3.61 9510628-4E5AL 14231.0 SD 175.1 CV 1.2	

SAMPLE	# 1 4 Cr pb5 Y	EM	REPLICATE #1 1220 11/07/95 1.087 1.003 13965
SAMPLE	# <b>1 4</b> Cr pb5 Y	ΕM	REPLICATE #2 1.100 1.000 14202
SAMPLE	# <b>1 4</b> Cr pb5 Y	EM	REPLICATE #3 1.113 0.975 14315
	Cr pb5 Y	A V A V A V	1.100 SD 0.0130 CV 1.18 0.993 SD 0.0154 CV 1.55 14160.7 SD 178.6 CV 1.3 9510628-4E5pkdug
SAMPLE	# 1 5 Cr pb5 Y	EM	REPLICATE #1 1224 11/07/95 0.043 0.035 13770
SAMPLE	#15 Cr pb5 Y	EM	REPLICATE #2 0.039 0.033 13964
SAMPLE	#15 Cr pb5 Y	EM	REPLICATE #3 0.049 0.044 13969 Pb-only
	Cr pb5 Y	A V A V A V	0.043 SD 0.0054 CV 12.35 0.037 SD 0.0058 CV 15.40 13901.0 SD 113.5 CV 0.8 9510C10-15
SAMPLE	#16 Cr pb5 Y	<u>.</u> EM	REPLICATE #1 1228 11/07/95 0.105 0.370 13480
SAMPLE	#16 Cr pb5 Y	- EM	REPLICATE #2 0.104 0.343 13578
SAMPLE	#16 Cr pb5 Y	ЕМ	REPLICATE #3 0.099 0.375 13753
	Cr pb5 Y	A V A V A V	13753 0.103 SD 0.0031 CV 3.01 0.363 SD 0.0169 CV 4.65 13603.7 SD 138.3 CV 1.0 9510b35-3A
SAMPLE	#17 Cr pb5 Y	ΕM	REPLICATE #1 1233 11/07/95 0.136 0.147 14283
SAMPLE	#17 Cr pb5		REPLICATE #2 0.141 0.141

	Y	EM	14301	
SAMPLE	#17 Cr pb5 Y	EM	REPLICATE #3 0.141 0.109 14435	
	Cr pb5 Y	A V A V A V	14435 Cr-only  0.139 SD 0.0031 CV 2.19  0.132 SD 0.0205 CV 15.54 9510036-3B  14339.7 SD 83.1 CV 0.6	
SAMPLE	#18 Cr pb5 Y	EM	REPLICATE #1 1237 11/07/95 0.028 0.033 peak-noisy 13237	
SAMPLE	#18 Cr pb5 Y	ΕM	REPLICATE #2 0.022 0.036 peak-noisy 13476	
SAMPLE	#18 Cr pb5 Y	ΕM	REPLICATE #3 0.020 -0.028 window-edge 13504	
	Cr pb5 Y	A V A V A V	0.023 SD 0.0044 CV 18.82 Cr-only 0.013 SD 0.0362 CV 268.62 13405.7 SD 146.7 CV 1.1 9510138-31	
SAMPLE	#19 Cr pb5 Y	EM	REPLICATE #1 1241 11/07/95 0.008 peak-noisy 0.058 14076	
SAMPLE	#19 Cr pb5 Y	EM	REPLICATE #2 0.004 peak-noisy 0.074 peak-noisy 14112	
SAMPLE	#19 Cr pb5 Y	 EM	REPLICATE #3 0.009 peak-noisy 0.030 14069	
	Cr pb5 Y	~ AV AV AV	0.007 SD 0.0030 CV 44.10 0.054 SD 0.0222 CV 41.07 PBUZ-1 1/3 14085.7 SD 23.1 CV 0.2 PBUZ-1 1/3 P3050P	
SAMPLE	# <b>20</b> Cr pb5 Y	EM	REPLICATE #1 1246 11/07/95 0.461 0.971 14445	
SAMPLE	#20 Cr pb5 Y	ΕM	REPLICATE #2 0.466 1.004 14441	•
SAMPLE	#20 Cr pb5 Y	ΕM	REPLICATE #3 0.465 0.949 .14426	
	Cr pb5	A V A V	0.464 SD 0.0024 CV 0.53 UCSS-1 W1935 0.975 SD 0.0276 CV 2.84	

	Y	ΑV	1443/.3 SD 1U.U	CV	U.1
SAMPLE	#21 Cr pb5 Y	ΕM	REPLICATE 0.058 0.387 14671	#1	1250 11/07/95
SAMPLE	#21 Cr pb5 Y	ΕM	REPLICATE 0.060 0.382 14747	#2	
SAMPLE	#21 Cr pb5 Y.	ΕM	REPLICATE 0.058 0.379 14712	#3	
	Cr pb5 Y	AV AV	0.059 SD 0.0008 0.383 SD 0.0043 14710.0 SD 38.0	C V C V	1.45 1.14 9510658-10 QC mly
SAMPLE	#22 Cr pb5 Y	ЕМ	REPLICATE 1.040 0.913 14376	#1	1255 11/07/95
SAMPLE	#22 Cr pb5 Y	ΕM	REPLICATE 1.043 0.928 14598	#2	
SAMPLE	#22 Cr pb5 Y	ΕM	REPLICATE 1.056 0.941 14522	#3	
	Cr pb5 Y	AV AV AV	1.047 SD 0.0086 0.927 SD 0.0138 14498.7 SD 112.8	C V C V C V	0.82 1.49 0.8 9510658-10 SPK
SAMPLE	#23 Cr pb5 Y	EM	REPLICATE 1.020 0.964 14580	#1	1259 11/07/95
SAMPLE	#23 Cr pb5 Y	- EM	REPLICATE 1.086 0.942 14459	#2	
SAMPLE	#23 Cr pb5 Y	EM	REPLICATE 1.050 0.915 14615	#3	
	Cr pb5 Y	A V A V A V	1.052 SD 0.0329 0.941 SD 0.0246 14551.3 SD 81.9	CV CV	3.13 2.62 0.6 9510658-10 spledup
SAMPLE	#24 Cr pb5 Y	. EM	REPLICATE 0.097 0.247 .14112	# <b>1</b>	1303 11/07/95 ndow-edge
SAMPLE	#24 Cr		REPLICATE 0.093	#2	·

	рb5 <b>Y</b>	EM	0.259 14310
SAMPLE	# 2 4 Cr pb5 Y	EΜ	REPLICATE #3 0.107 0.228 14240
	Cr pb5 Y	A V A V A V	0.099 SD 0.0074 CV 7.50 0.245 SD 0.0157 CV 6.40 9511049-18 14220.7 SD 100.4 CV 0.7
SAMPLE	#25 Cr pb5 Y	EM	REPLICATE #1 1308 11/07/95 4.962 457.957 over-range 14391
SAMPLE	#25 Cr pb5 Y	ΕM	REPLICATE #2 5.167 454.231 14866  over-range
SAMPLE	#25 Cr pb5 Y	ΕM	14866  REPLICATE #3 4.962 436.971 15041  5.030 SD 0.1185 CV 2.36
	Cr pb5 Y	A V A V A V	5.030 SD 0.1185 CV 2.36 449.720 SD 11.1963 CV 2.49 951DDDD-/A 14766.0 SD 336.3 CV 2.3
SAMPLE	#26 Cr pb5 Y	ΕM	REPLICATE #1 1312 11/07/95 1.986 2.136 15357
SAMPLE	#26 Cr pb5 Y	EM	REPLICATE #2 2.019 2.206 15177
SAMPLE	#26 Cr pb5 Y	EM	REPLICATE #3 2.035 2.137 15016
	Cr pb5 Y	A V A V A V	2.013 SD 0.0252 CV 1.25 2.159 SD 0.0403 CV 1.87 15183.3 SD 170.6 CV 1.1
SAMPLE	#27 Cr pb5 Y	ΕM	REPLICATE #1 1317 11/07/95 0.007 0.036 peak-noisy 14800
SAMPLE	#27 Cr pb5 Y	ЕМ	REPLICATE #2 -0.001 peak-noisy 0.024 peak-noisy 15053
SAMPLE	#27 Cr pb5 Y	ΕM	REPLICATE #3 0.010 peak-noisy 0.030 peak-noisy 14898
	Cr	AV	0.005 SD 0.0054 CV 100.21

<b>=</b>	рЬ5 Y	A V A V	0.030 SD 0.0 14917.0 SD 12	057 CV 7.6 CV	19.08 0.9 CD1
SAMPLE	#28 Cr pb5 Y	ΕM	REPLICAT 0.007 0.013 13836		1321 11/07/95 indow-edge
SAMPLE	#28 Cr pb5 Y	ΕM	REPLICAT 0.002 0.020 14057		eak-noisy
SAMPLE	#28 Cr pb5 Y	EM	REPLICAT 0.013 0.029 14042	рe	eak-noisy eak-noisy
•	Cr pb5 Y	A V A V A V	0.021 SD 0.0	053 CV 080 CV 3.5 CV	73.18 38.67 PRUL 11/6, P305CP 0.9
SAMPLE	#29 Cr pb5 Y	EM	REPLICAT 0.412 0.831 14499	TE #1	1326 11/07/95
SAMPLE	#29 Cr pb5 Y	ЕМ	REPLICAT 0.406 0.876 14522	TE #2	
SAMPLE	#29 Cr pb5 Y	ΕM	REPLICAT 0.424 0.857 14716	TE #3	(100 100 100
,	Cr pb5 Y	A V A V A V	0.854 SD 0.0	091 CV 227 CV 9.2 CV	2.20 2.65 USS-1 101235 0.8
SAMPLE	#30 Cr pb5 Y	EM	REPLICA 0.012 0.047 14355	TE #1	1330 11/07/95
SAMPLE	#30 Cr pb5 Y	EM	REPLICA 7 0.020 0.064 14570		eak-noisy
SAMPLE	#30 Cr pb5 Y	ΕM	REPLICA 0.017 0.025 14509		eak-noisy
	Cr pb5 Y	A V A V A V	0.045 SD 0.0	045 CV 197 CV 0.8 CV	27.64 43.47 9510C20-10 QC 0.8
SAMPLE	#31 Cr pb5 Y	EΜ	REPLICA 1.076 0.951 14754	rE #1	1335 11/07/95
SAMPLE	#31		REPLICA	re #2	

SOUL FF	Cr pb5	EM	1.082 0.986 14652	ir 4	
SAMPLE	#31 Cr pb5 Y	EM	REPLICATE 1.072 0.951 14901	#3	
	Cr pb5 Y	A V A V A V	1.076 SD 0.0052 0.963 SD 0.0204 14769.0 SD 125.2	C V C V	0.48 2.11 0.8 9510C20-1D8pk
SAMPLE	#32 Cr pb5 Y	EM	REPLICATE 1.099 0.982 14912	#1	1339 11/07/95
SAMPLE	#32 Cr pb5 Y	EM	REPLICATE 1.072 1.013 14989	#2	
SAMPLE	#32 Cr pb5 Y	ЕМ	REPLICATE 1.113 0.953 14898	#3	
	Cr pb5 Y	A V A V A V	1.095 SD 0.0209 0.982 SD 0.0302 14933.0 SD 49.0	C V C V	1.91 3.07 0.3 9510C20-1D5pkdip
SAMPLE	#33 Cr pb5 Y	ЕМ	REPLICATE 0.156 0.120 14538	#1	1343 11/07/95
SAMPLE	#33 Cr pb5 Y	ЕМ	REPLICATE 0.161 0.117 14438	#2	
SAMPLE	#33 Cr pb5 Y	~ EM	REPLICATE 0.159 0.125 14428	#3	
	Cr pb5 Y	A V A V A V	0.158 SD 0.0023 0.121 SD 0.0040 14468.0 SD 60.8	C V C V	1.45 3.34 9511195 B
SAMPLE	#34 Cr pb5 Y	ЕМ	REPLICATE 0.090 0.189 13316	#1	1348 11/07/95
SAMPLE	#34 Cr pb5 Y	EΜ	REPLICATE 0.088 0.215 13703	#2	
SAMPLE	#34 Cr pb5 Y	ЕМ	REPLICATE 0.086 0.179 13695	#3	

	Cr pb5 Y	A V A V A V	0.088 SD 0.0016 CV 1.77 0.194 SD 0.0185 CV 9.52 13571.3 SD 221.2 CV 1.6 95 00 35 A
SAMPLE	#35 Cr pb5 Y	ЕМ	REPLICATE #1 1352 11/07/95 0.042 0.112 13939
SAMPLE	#35 Cr pb5 Y	ΕM	REPLICATE #2 0.033 0.101 14267
SAMPLE	#35 Cr pb5 Y	EΜ	REPLICATE #3 0.044 peak-noisy 0.109 14041
1	Cr pb5 Y	A V A V A V	0.040 SD 0.0058 CV 14.70 0.107 SD 0.0057 CV 5.31 9510D35-2A 14082.3 SD 167.9 CV 1.2 9510D35-2A
SAMPLE	#36 Cr pb5 Y	ЕМ	REPLICATE #1 1357 11/07/95 0.119 0.129 peak-noisy 14063
SAMPLE	#36 Cr pb5 Y	Ем	REPLICATE #2 0.119 0.160 14100
SAMPLE	#36 Cr pb5 Y	EM	REPLICATE #3 0.124 0.133 14129
<b>-</b>	Cr pb5 Y	A V A V A V	0.121 SD 0.0027 CV 2.22 0.141 SD 0.0169 CV 11.99 14097.3 SD 33.1 CV 0.2 9510036-1A
SAMPLE	#37 Cr pb5 Y	EM	REPLICATE #1 1401 11/07/95 0.085 0.121 14485
SAMPLE	#37 Cr pb5 Y	ΕM	REPLICATE #2 0.081 0.117 14645
SAMPLE	<b>#37</b> Cr pb5 Y	ЕМ	REPLICATE #3 0.082 0.157 14524
	Cr pb5 Y	A V A V A V	0.082 SD 0.0023 CV 2.82 0.131 SD 0.0223 CV 16.99 14551.3 SD 83.4 CV 0.6 9510D36-2A
SAMPLE	#38 Cr pb5 Y	ЕМ	REPLICATE #1 1405 11/07/95 0.100 0.121 14277

SAMPLE	#38 Cr pb5 Y	ΕM	REPLICATE 0.100 0.122 14289	#2
SAMPLE	#38 Cr pb5 Y	EM	REPLICATE 0.098 0.085 14085	#3
	Cr pb5 Y	A V A V A V	0.099 SD 0.0016 0.109 SD 0.0213 14217.0 SD 114.5	cv 1.57 cv 19.52 cv 0.8 9510月38-18
SAMPLE	#39 Cr pb5 Y	ΕM	REPLICATE 0.143 0.143 14612	#1 1409 11/07/95
SAMPLE	#39 Cr pb5 Y	EM	REPLICATE 0.138 0.159 14294	#2
SAMPLE	#39 Cr pb5 Y	ΕM	REPLICATE 0.141 0.133 14437	#3
	Cr pb5 Y	A V A V A V	0.141       SD       0.0025         0.145       SD       0.0132         14447.7       SD       159.3	cv 1.75 cv 9.13 9510038-2A cv 1.1
SAMPLE	# 4 0 Cr pb5 Y	ĔΜ	REPLICATE -0.000 0.006 13206	# 1 1414 11/07/95 window-edge
SAMPLE	#40		REPLICATE	#2
·	Cr pb5 Y	EM	0.010 0.019 13196	peak-noisy
SAMPLE	pb5	EM EM	0.019	
SAMPLE	pb5 Y #40 Cr pb5		0.019 13196 REPLICATE 0.007 0.040	peak-noisy
SAMPLE	pb5 Y # 4 O Cr pb5 Y Cr pb5	EM AV AV	0.019 13196 REPLICATE 0.007 0.040 13059 0.006 SD 0.0051 0.021 SD 0.0172	peak-noisy #3 peak-noisy  CV 90.72
•	pb5 Y #40 Cr pb5 Y Cr pb5 Y #41 Cr pb5	EM AV AV	0.019 13196 REPLICATE 0.007 0.040 13059 0.006 SD 0.0051 0.021 SD 0.0172 13153.7 SD 82.1 REPLICATE 1.926 1.729	peak-noisy  #3 peak-noisy  CV 90.72 CV 80.15 CV 0.6 PBIX-1 116 P30101

	Y	EM	15160		
	Cr pb5 Y	A V A V A V	1.765 SD 0.0	259 CV 1.32 403 CV 2.28 0.7 CV 1.0	5W-1
SAMPLE	#42 Cr		REPLICAT	7.7	.1/07/95
	рb5 Y	ΕM	0.010 13699	window-edge window-edge	
SAMPLE	# 4 2 Cr pb5 Y	EM	REPLICAT 0.009 0.054 13593	「E #2 window-edge peak-noisy	
SAMPLE	# 4 2 Cr pb5 Y	ΕM	REPLICAT 0.011 0.006 13831	LE #3	. •
	Cr pb5 Y	A V A V A V	0.023 SD 0.0	027 CV 32.48 265 CV 114.74 9.2 CV 0.9	ANK [14 EX]
SAMPLE	# 4 3 Cr pb5 Y	EM	REPLICAT 0.022 0.012 13853	TE#1 1426 1 peak-noisy	.1/07/95
SAMPLE	#43 Cr pb5 Y	EΜ	REPLICAT 0.023 0.012 13864	re #2 peak-noisy	
SAMPLE	#43 Cr pb5 Y	EΜ	REPLICAT 0.022 0.067 13854	FE #3 peak-noisy peak-noisy	r
1 -	Cr pb5 Y	A V A V . A V	0.031 SD 0.0	003 CV 1.50 318 CV 104.18 6.1 CV 0.0	[soil-11/4 EX]
SAMPLE	# <b>4 4</b> Cr pb5 Y	EM	REPLICAT 1.003 0.918 13840	TE #1 1431 1	.1/07/95 <sup>0</sup>
SAMPLE	# 4 4 Cr pb5 Y	EM	REPLICAT 1.020 0.917 13791	TE #2	
SAMPLE	# 4 4 Cr pb5 Y	EΜ	REPLICAT 1.030 0.940 13788	TE #3	•
]	Cr pb5 Y	A V A V A V	0.925 SD 0.0	138 CV 1.35 132 CV 1.43 QE 9.2 CV 0.2	10,049-5C Spl
SAMPLE	# 45 Cr pb5		REPLICAT 1.000 0.893	TE #1 1435.1	.1/07/95

	Υ	ЕМ	13959	
SAMPLE	#45 Cr pb5 Y	ЕМ	REPLICATE 0.992 0.905 14124	#2
SAMPLE	# 45 Cr pb5 Y	ΕM	REPLICATE 1.017 0.892 14037	#3
	Cr pb5 Y	A V A V A V	1.003 SD 0.0128 0.897 SD 0.0075 14040.0 SD 82.5	cv 1.27 cv 0.84 cv 0.6 95/0049-50 5pk
SAMPLE	#46 Cr pb5 Y	EM	REPLICATE 0.013 0.078 12909	# 1 1439 11/07/95 peak-noisy
SAMPLE	# 46 Cr pb5 Y	EM	REPLICATE 0.008 0.077 12841	#2
SAMPLE	# 46 Cr pb5 Y	ΕM	REPLICATE 0.007 0.073 12982	#3  peak-noisy  Pb-only  CV 32.30  CV 3.82  CV 0.5  Pb-only  Soil "/4 EX]
	Cr pb5 Y	A V A V A V	0.009 SD 0.0030 0.076 SD 0.0029 12910.7 SD 70.5	CV 32.30 [307 14 ] CV 3.82 (511166-18) CV 0.5
SAMPLE	# 4 7 Cr pb5 Y	ΕM	REPLICATE 0.048 9.064 16349	#1 1443 11/07/95
SAMPLE	# 47 Cr pb5 Y	EM	REPLICATE 0.052 8.941 16234	#2
SAMPLE	#47 Cr pb5 Y	EM	REPLICATE 0.047 8.961 16060	#3 Pb-only CV 4.46 X100
	Cr pb5 Y	A V A V A V	0.049 SD 0.0022 8.989 SD 0.0660 16214.3 SD 145.5	cv 4.46 cv 0.73 951 DD00-1A cv 0.9
SAMPLE	#48 Cr pb5 Y	ЕМ	REPLICATE 0.018 0.018 14159	#1 1447 11/07/95 window-edge window-edge
SAMPLE	#48 Cr pb5 Y	EΜ	REPLICATE 0.023 0.002 13890	#2 window-edge
SAMPLE	#48 Cr		REPLICATE 0.005	#3 window-edge

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<b>P</b>	рЬ5 <b>Y</b>	ЕМ	0.016 13818		 ₩ <b>i</b> `	ndow-edge	
	Cr pb5 Y	A V A V A V	0.015 SD 0.012 SD 13955.7 SD	0.0089 0.0091 179.7	CV	58.34 74.83 <i>ICSAF</i> 1.3	
SAMPLE	# <b>4 9</b> Cr pb5 Y	ΕM	REPLI 0.505 1.005 13822	CATE	#1	1451 11/07	/95
SAMPLE	# <b>4 9</b> Cr pb5 Y	ЕМ	REPLI 0.496 1.002 13658	CATE	#2		
SAMPLE	# <b>4 9</b> Cr pb5 Y	ЕМ	REPLI 0.475 1.041 13774	CATE	#3		
	Cr pb5 Y	A V A V A V	0.492 SD 1.016 SD 13751.3 SD	0.0158 0.0221 84.3	C V C V	3.20 2.17 ICSABF 0.6	
SAMPLE	#50 Cr pb5 Y	E M	REPLI 1.976 1.999 15301	CATE	#1	1455 11/07/	/95
SAMPLE	#50 Cr pb5 Y	ΕM	REPLI 1.984 1.956 15431	CATE	#2		
SAMPLE	# <b>5 0</b> Cr pb5 Y	ΕM	REPLI 1.952 2.017 15401	CATE	#3	,	
<b>1</b>	Cr pb5 . Y	A V A V	1.971 SD 1.991 SD 15377.7 SD	0.0164 0.0310 68.1	C V C V	0.83 1.56 0.4	
BAMPLE	#51 · Cr pb5	ΕM	REPLI 0.008 0.016 15092	CATE		1500 11/07/ k-noisy dow-edge	95
SAMPLE	#51 Cr pb5 Y	ΕM	REPLIO 0.007 -0.011 15086	CATE		iow-edge iow-edge	
AMPLE	#51 Cr · pb5 Y	E M	REPLIO 0.004 0.023 15252	CATE	#3		
	Cr pb5 Y	A V A V A V	0.006 SD 0.009 SD 15143.3 SD	0.0020 0.0181 94.2		0.55 8.25 0.6 CB2	

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ORG. EXTR. RECORD

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SAMHAIN

Software Version: 3.2 <16020>

: 11/6/95 08:36 AM Sample Name : 10CPPM Study : MODWH Sample Number: IC ;W

Operator : SEG/DR

Instrument : HP\_T AutoSampler : HP 7673A A/D mV Range : 1000 Channel : B

Rack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 11/3/95 04:44 PM

belay Time : 0.50 min. : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : L:\DATA\TCHROM\PEST\HP\_T\TT\_\_147.RAW

Result File : C:\WINDOWS\TEMP\~rst3937.rst

Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHORS\DIESELT.prc Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELTT.smp

Sequence File : <none>

Area Reject : 100.00 Inj. Volume : 1 ul Sample Amount : 1.0000 Dilution Factor : 1.00

### Area/Concentration Report

eak #	Ret Time (min)	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT.	Component Name	Raw Amount	" 	· · · · · · · · · · · · · · · · · · ·
1 2 3 4 5 6 7 8 9 10 11 12	2.901 4.921 6.249 6.487 7.778 8.779 8.941 9.860 10.000 10.968 11.861 12.688 13.465	165919.00 209770.75 482.41 222857.00 233185.50 486.50 232286.50 709.50 227567.00 229078.25 231008.00 245289.25 306492.00	36198.95 21878.23 36.73 17819.26 30715.36 138.81 40363.56 204.71 45451.98 48717.61 42076.70 28979.96	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	4.999965 5.000065 5.000065 1970.0000 1970.0000 5.000065 5.000065 5.000065 5.000065 5.000065 5.000065 5.000065		0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103	117.6309 117.6309 117.6309 117.6309 117.6309 117.6309 117.6309 117.6309 117.6309 117.6309	Total Petroleum Hydr o-Terphenyl	0.3318 0.4195 0.0010 0.4457 118.3683 0.2470 0.4646 0.0014 0.4551 0.4582 0.4620 0.4906 0.6130		
• • • • •	• • • • • • • • • • • • • • • • • • • •	2305131.50	329127.06	, 5	•		6.6339	1529.2012		122.7581	13	

Chromatogram Sample #: TC ;W Date: 11/6/95 08:37 AM Page 1 of 1 Sample Name : 100PPM FileName : L:\DATA\TCHRCM\PEST\HP\_T\TT\_\_147.RAW 04:44 PM High Point : 553.28 mV Time of Injection: 11/3/95 Method : DIESELT.ins End Time : 28.25 min Plot Offset: 15 mV Low Point : 15.37 mV Start Time : 0.50 min Plot Scale: 538 mV Scale Factor: -11.86 -10.97=9.86 Response [mV] 300 150-100-3

[min] Time

Software Version: 3.2 <16020>

Sample Name : 200PPM Time : 11/6/95 08:37 AM Sample Number: TC ;W : MODUM

Study Operator : SEG/DR

Instrument : HP\_T AutoSampler : HP 7673A

Channel: B A/D mV Range : 1000

Rack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 11/3/95 05:19 PM

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : L:\DATA\TCHROM\PEST\HP\_T\TT\_\_148.RAW

Result File : C:\WINDOWS\TEMP\~rst3937.rst

Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PESI\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PESI\METHODS\DIESELTI.smp

Sequence File : <none>

Inj. Volume : 1 ul Sample Amount : 1.0050

Area Reject Dilution Factor : 1.00

### Area/Concentration Report

Peak ≠	Ret Time (min)		Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	2.901 4.919 6.248 6.456 7.587 7.768 8.773 8.934 9.352 9.352 9.993 10.485 10.962 11.853 12.582 13.458	473412.75 1260.06 487440.72 2258.09 508420.25 1380.91 508540.56 1349.00 1611.63 498574.25 2893.00 497602.09 482351.00 477556.38 485482.75	310.04 68960.39 266.91 100903.35 435.44 120955.29 177.01 497.60 128177.46 366.27 135846.25 131026.33 94752.30 49897.54	3 V 5 5 3 V 5 5 5 V 5 5 5 V 5 5 V 5 5 V 5 5 V 5 5 V 7 7 7 7	4.7999e5 5.000e5 5.000e5 5.000e5 1969,9999 1973.0001 5.000e5 5.000e5 5.000e5 5.000e5 5.000e5 5.000e5 5.000e5 5.000e5 5.000e5 5.000e5		0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103	247.1010 247.1010 247.1010 247.1010 247.1010	Total Petroleum Hydr o-Terphenyl	0.8203 0.9468 0.0025 0.9749 0.0045 258.0814 0.7010 1.0171 0.0027 0.0032 0.9972 0.0058 0.9992 0.9647 0.9551 0.9710	
		4842269.00	1.0006			8	8.1648	3953.6162		267.4473	

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Response [mV]

Sample Name : 200PPM

FileName : L:\DATA\TCHROM\PEST\HP\_T\TT\_148.RAW

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor: !

SELT. ins

End Time : 28.25 min Plot Offset: 14 mV

Sample #: TC ;W

Date: 11/6/95 08:37 AM

Time of Injection: 11/3/95 Low Point: 13.61 mV

Plot Scale: 543 mV

Page 1 of 1

05:19 PM

High Point: 556.96 mV

-2.90 -4.92 =6.25 =7.59 =8.77 =9.71 -10.49 -11.85 -11.85

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350---

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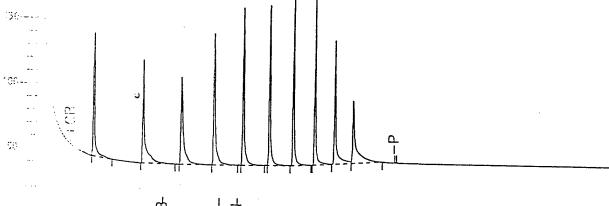
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2-FLUOROB-TOTAL PET -O-TERPHEN-

Software Version: 3.2 <16C20>

Sample Name : 400PPM Time : 11/6/95 08:35 AM

Sample Number: TC ;W Study : MODUM
Operator : SEG/DR

Instrument : 52\_T Channel : B A/D mV Range : 1000

Instrument : SP\_T AutoSampler : HP 7673A Rack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 11/3/95 05:55 PM

Delay Time : 0.50 min.
End Time : 28.25 min.
Sampling Rate : 1.0000 pts/sec

Raw Data File : L:\DATA\TCHROM\PEST\HP\_T\TT\_\_149.RAW

Result File : C:\WINDOWS\TEMP\~rst3937.rst

Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins
Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELTT.smp

Sequence File : <none>

Inj. Volume : 1 ul Area Reject : 100.00
Sample Anount : 1.0000 Dilution Factor : 1.00

### Area/Concentration Report

							•				
Peak	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF	VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 17 20 21 22 23 24 25	2.521 2.901 3.294 4.666 4.917 6.120 6.246 6.450	1991.00 861675.00 22463.00 544.00 987362.50 3303.00 3260.66 995509.50 12405.13 2092.41 1039436.50 4025.06 1042822.00 5415.00 4837.00 1021232.75 5746.00 1021039.38 4960.25 939761.06 8444.00 1787.75 1180.00 987748.38 1016646.00	752.93 222207.09 3037.91 199.99 229560.14 322.14 915.38 215141.97 1035.74 1645.46 263192.23 1163.49 300780.38 573.11 1413.43 317357.24 785.77 327329.72 714.44 326292.38 837.42 424.56 349.43	8	5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5		0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103 0.5103	512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314 512.6314	Total Petroleum Hydr o-Terphenyl	0.0040 1.7234 0.0449 0.0011 1.9747 0.0066 0.0065 1.9910 0.0248 0.0042 527.6328 2.0432 2.0856 0.0108 0.0097 2.0425 0.0115 2.0421 0.0099 1.9795 0.0169 0.0036 0.0024 1.9755 2.0333	
		10045687.00	2.63e5			1	12.7575	12815.7891		547.6803	

ENG \_\_\_\_\_

#### Chromatogram

Sample Name : 400PPM

: L:\DATA\TCHROM\PEST\HP\_T\TT\_\_149.RAW FileName

: DIESELT.ins

Start Time : 0.50 min

End Time : 28.25 min Sample #: TC ;W Date : 11/6/95 08:36 AM

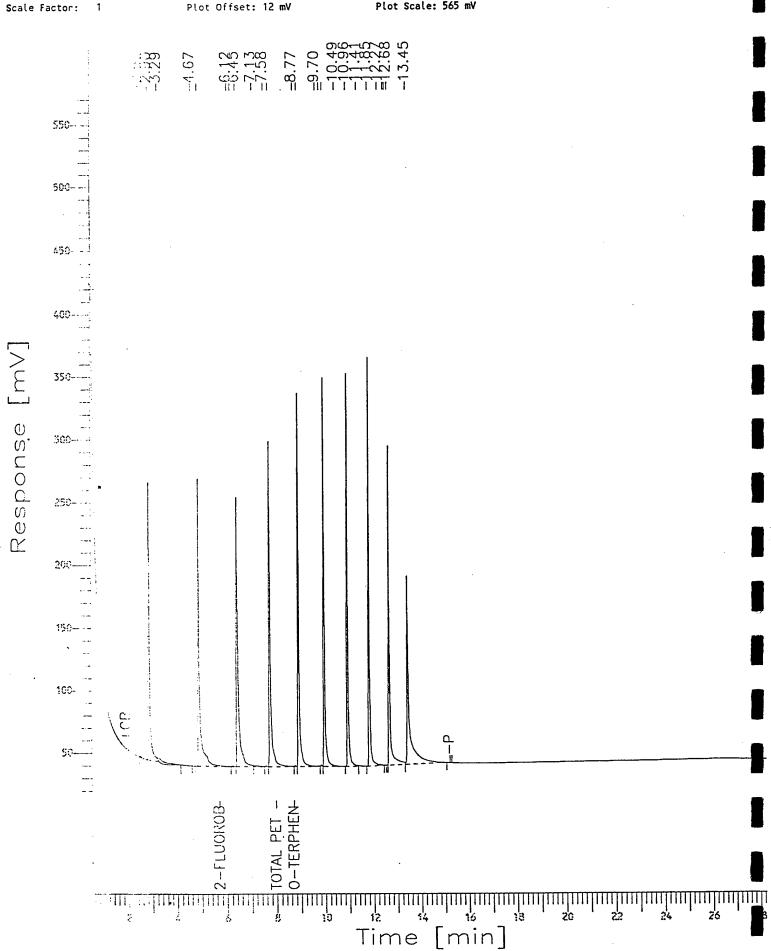
05:55 PM Time of Injection: 11/3/95

Low Point : 12.23 mV

High Point : 577.41 mV

Page 1 of 1

Plot Scale: 565 mV



.

oftware Version: 3.2 <16C20>

: 11/6/95 08:35 AM Time ample Name : 800PPM Study : MODWM

Sample Number: TC ;W

Operator : SEG/DR

Channel: B A/D mV Range: 1000 nstrument : HP\_T

AutoSampler : HP 7673A Rack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 11/3/95 06:30 PM

Delay Time : 0.50 min. End Time : 28.25 min. End Time Sampling Rate : 1.0000 pts/sec

raw Data File : L:\DATA\TCHROM\PEST\HP\_T\TT\_\_150.RAW
Result File : C:\WINDOWS\TEMP\~rst3937.rst

Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc sample File : L:\DATA\TCHROM\PEST\METHGDS\DIESELTT.smp

Sequence Fite : <none>

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject : 100.00 Dilution Factor : 1.00

### Area/Concentration Report

Sample Name : 80CPPM

: L:\DATA\TCHROM\PEST\HP\_T\TT\_\_150.RAW

Method : DIESELT.ins

Start Time : 0.50 min

Scale Factor: 1

End Time : 28.25 min

Plot Offset: 5 mV

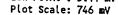
Sample #: TC ;W

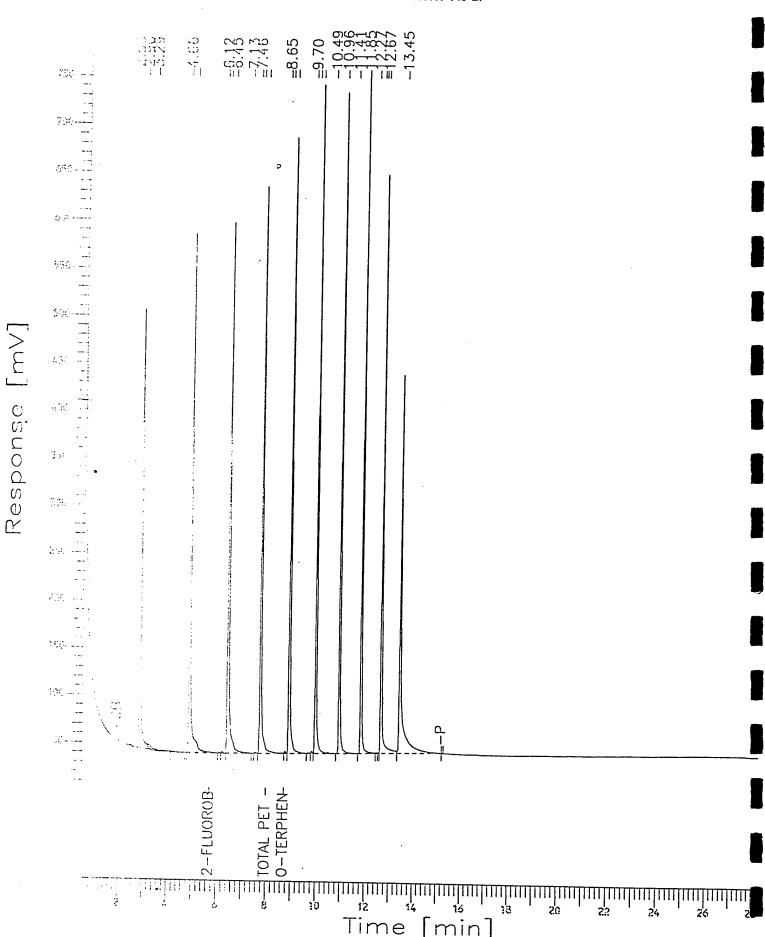
Date: 11/6/95 08:35 AM

Time of Injection: 11/3/95 06:30 PM Low Point : 5.11 mV

High Point: 750.95 mV

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oftware Version: 3.2 <16020>

ample Name : 1000PPM

Time : 11/6/95 08:33 AM Sample Number: TC ;W Study : MODWM

perator : SEG/DR

nstrument : HP\_T

Channel: B A/D mV Range: 1000

AutoSampler : HP 7673A Rack/Vial : 0/0

nterface Serial # : 4118271220 Data Acquisition Time: 11/3/95 07:05 PM

Delay Time : 0.50 min.
End Time : 28.25 min.
Mampling Rate : 1.0000 pts/sec

aw Data File : L:\DATA\TCHROM\PEST\HP\_T\TT\_\_151.RAW

Result File : C:\WINDOWS\TEMP\~rst3937.rst

Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins rocess File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc ample File : L:\DATA\TCHROM\PEST\METHODS\DIESELTT.smp

Sequence File : <none>

nj. Volume : 1 ul ample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

### Area/Concentration Report

Peak #	Ret Time [min]	Area [uV-sec]	Height [uv]		Area/ Amount	RF	VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
• 1	2.525	8146.00			5.0000e5		0.5103	1273.1482		0,0163	
2	2.900	2227821.75			4.9999e5		0.5103			4.4556	
3	3.285	27488.00			5.0000e5		0.5103			0.0550	
3 4 5	4.662	1872.50			5.0000e5		0.5103			0.0038	
5	4.916	2472548.00			5.0000e5		0.5103			4.9451	
6	6.117	3739.00			5.0000e5		0.5103			0.0075	
7	6.240	9082.03			5.0000e5		0.5103			0.0182	
7 8 9	€.447	2501522.00	739340.75	8E	5.0000e5		0.5103			5.0030	
9.	7.128	20644.00			5.0000e5		0.5103			0.0413	
10	7.454	2015.38			4.9999e5		0.5103		•	0.0040	
11	7.590	5452.41			5.0000e5		0.5103	1277 1/02		0.0100	
12 13 14	7.758	2571367.75	806579.19	ΒE	1970.0000		0.5103	1273.1482	Total Petroleum Hydr	1305.2628	
13	8.649	2451.00			4.9999e5		0.5103	1273.1482	•	0.0049	
	€.757	7877.09			1970.0000		0.5103	1273.1482	o-Terphenyl	3.9985	
15	8.928	2565985.50	867700.19	ΒV	5.0000e5		0.5103	1273.1482	•	5.1320	
16 17	9.701	4945.25			4.9999e5		0.5103	1273.1482		0.0099	
17	9.344	8903.13		VV	4.9999e5		0.5103	1273.1482		0.0178	
18	9.936	2517247.00	905778.56	٧E	5.0000e5		0.5103	1273.1482		5.0345	
19	10.484	6603.00	1475.36	EB	4.9999e5		0.5103	1273.1482		0.0132	
20	10.955	2524360.00	893202.25	ΒE	5.0000e5		0.5103	1273.1482		5.0487	
21	11.412	7310.00		E۷	5.0000e5		0.5103	1273.1482		0.0146	
21 22 23	11.848	2454945.00	913445.38	٧E	4.9999e5		0.5103	1273.1482		4.9299	
	12.257	15279.00	1510.30	E۷	5.0000e5		0.5103	1273.1482		0.0306	
24	12.491	5363.91	1153.47	٧V	5.0000e5		0.5103	1273.1482		0.0107	
25	12.557	3751.64	1105.44	VV	5.0000e5		0.5103	1273.1482		0.0075	
25 26 27	12.674	2468518.00					0.5103	1273.1482		4.9370	
<b>2</b> 7	13.448	2493763.50	542407.56	VB	5.0000e5		0.5103	1273.1482		4.9875	
•		24949014.00	7.85e6			1	13.7781	34375.0039	Total Petroleum Hydr o-Terphenyl	1354.0009	

Sample Name : 1000PPM

FileName : L:\DATA\TCHROM\PEST\HP\_T\TT\_\_151.RAW

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor: 1

Plot Offset: -4 mV

End Time : 28.25 min

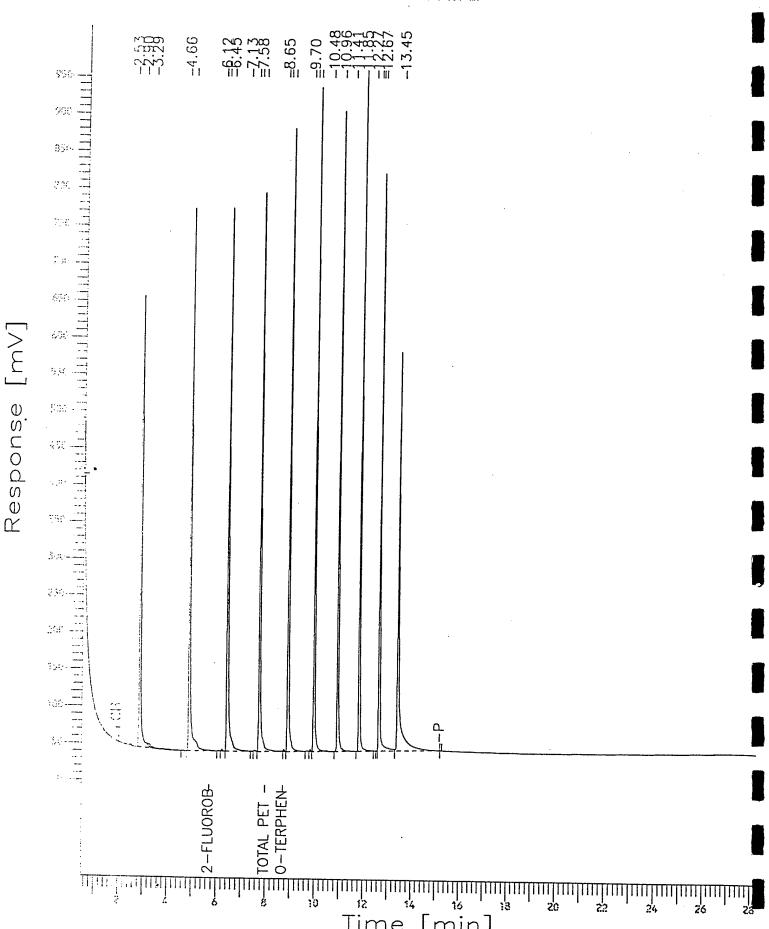
Sample #: TC ;W Date : 11/6/95 08:33 AM

Time of Injection: 11/3/95 07:05 PM Low Point : -4.02 mV

Plot Scale: 957 mV

High Point: 953.07 mV

Page 1 of 1



Software Version: 3.2 <16C2O>

Sample Name : 9510834-028

Sample Number: SC ;W

Time

: 11/01/95 21:47

Study : MODWD

Operator : SEG

Channel: A

A/D mV Range: 1000

Instrument : HP\_T AutoSampler : HP 7673A Rack/Vial : 0/0

Interface Serial # : 4118271220 Data Acquisition Time: 11/01/95 22:19

Delay Time : 0.50 min. End Time : 28.25 min. End Time Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_874.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_874.rst
Instrument File: L:\DATA\TCHROM\PEST\METHOOS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

Area Reject

: 100.00

Dilution Factor : 1.00

### Area/Concentration Report

					,	· · · · · · · · · · · · · · · · · · ·			
	Ret Time	Area	Height	BL	Area/	RF VALUE	DIESEL AMT.	Component	Raw
#	[min]	[uV-sec]	[uV]		Amount		PPM	Name	Amount
1	2.775	4102.97	646.20	 DD	5.0000e5	0 5044	477 4575	***************************************	
ż	3.115	69331.13	13090.18			0.5066	137.1535		0.0082
<u> </u>	3.322	33974.53			5.0000e5	0.5066	137.1535		0.1387
4	3.588	16103.66	3435.10		5.0000e5	0.5066	137.1535		0.0680
5	3.672	18244.91	2493.52		4.9999e5	0.5066	137.1535		0.0322
6	3.881	185362.97	2934.81		5.0000e5	0.5066	137.1535		0.0365
7	4.096	157197.94	43787.46 1 19702.51		5.0000e5	0.5066	137.1535		0.3707
8	4.281	54699.06			5.0000e5	0.5066	137.1535		0.3144
8.	4.452	20843.50	8494.56 t 3883.73 t		5.0000e5	0.5066	137.1535		0.1094
<b>■</b> 10	4.687	120722.97			5.0000e5	0.5066	137.1535		0.0417
11	4.790	137005.69	15966.34 \\ 14397.92 \		5.0000e5	0.5066	137.1535		0.2415
12	5.085	17767.83	4665.09		5.0000e5 5.0000e5	0.5066	137.1535		0.2740
13	5.173	44654.56	6779.34		5.0000e5	0.5066	137.1535		0.0355
14	5.311	33751.91	4488.51			0.5066	137.1535		0.0893
15	5.482	7281.36	1909.42		5.0000e5	0.5066	137.1535		0.0675
16	5.709	78011.13	7424.23		5.0000e5	0.5066	137.1535		0.0146
17	5.840	37195.84	4760.65		5.0000e5	0.5066	137.1535		0.1560
18	5.997	38283.16	4028.22		5.0000e5	0.5066	137.1535		0.0744
19	6.177	15945.92			4.9999e5	0.5066	137.1535		0.0766
20	6.279	11244.14	3016.49		4.9999e5	0.5066	137.1535		0.0319
21	6.484	108813.63	2366.83 \ 9563.20 \		5.0000e5	0.5066	137.1535		0.0225
22	6.653	55338.86	9966.25 \		4.9999e5	0.5066	137.1535		0.2176
23	6.740	102664.22	9693.83 \		5.0000e5 5.0000e5	0.5066	137.1535		0.1107
24	6.984	62782.41	7276.01 \		5.0000e5	0.5066	137,1535		0.2053
25	7.134	28486.28	6246.35 \		5.0000e5	0.5066	137.1535		0.1256
26	7.242	67452.34	9617.70 \		5.0000e5	0.5066	137.1535		0.0570
26 27	7.365	77164.81	10371.47 \		5.0000e5	0.5066 0.5066	137.1535		0.1349
28	7.495	73359.94	13629.91		5.0000e5	0.5066	137.1535 137.1535		0.1543
29	7.597~	41188.77	7915.32 \		5.0000e5	0.5066	137.1535		0.1467
30	7.706	35891.97	6546.30 \		5.0000e5	0.5066	137.1535		0.0824
31	7.876	98034.13	7183.98 \		1778.5000	0.5066		2. El Hopop I pursuy	0.0718
32	8.075	57454.69	7520.01 \		5.0000e5	0.5066	137.1535	2-FLUOROBIPHENYL	55.1218
33	8.246	62140.94	6801.90 \		5.0000e5	0.5066	137.1535 137.1535		0.1149
34	8.423	56267.13	6781.09 \		5.0000e5	0.5066	137.1535		0.1243
35	8.591	37218.41	5919.18 \		5.0000e5	0.5066	137.1535		0.1125
34 35 36	8.729	80258.44	6836.36 \		5.0000e5	0.5066	137.1535		0.0744
37	8.982	45712.78	4790.04 \		5.0000e5	0.5066	137.1535		0.1605
38	9.151	42255.72	4178.77		5.0000e5	0.5066	137.1535		0.0914
39	9.295	21382.59	3824.88 \		4.9999e5	0.5066	137.1535		0.0845
40	9.385	13754.52	3499.36 \		5.0000e5	0.5066	137.1535		0.0428
41	9.454	46104.06	4953.94 \		5.0000e5	0.5066	137.1535		0.0275
42	9.657	19229.33	3484.05 \		5.0000e5	0.5066	137.1535		0.0922
	9.802	43765.56	3407.09 \		5.0000e5	0.5066	137.1535		0.0385
43 44	10.038	47705.50	3035.03 \		1778.5000	0.5066		Total Petroleum Hydr	0.0875
45	10.460	28962.06	2214.50 \	Ň	5.0000e5	0.5066	137.1535	Total retroteum nyur	26.8235
46	10.597	53624.81	7231.06 \		5.0000e5	0.5066	137.1535		0.0579
47	10.861	× 15075.72	2042.10 \		5.0000e5	0.5066	137.1535		0.1073
48	11.037 /		39652.45 \		5.0000e5	0.5066			0.0302
49	11.145	16640.00	4847.27 E		5.0000e5	0.5066	137.1535		0.2131
		.55 75.00		. *	2.00000	0.5000	137.1535		0.0333

10834-028 ms/msD

50 51 52 53 54 55 56 57 58 59 60	11.303 11.466 11.733 11.832 12.018 12.079 12.416 12.585 12.844 12.968 13.110	3806.66 17975.50 3179.44 12306.81 2230.97 4521.78 7370.44 3638.06 2284.72 780.28 2305.00	830.98 VV 1478.58 VV 514.61 VV 1922.34 VV 603.61 VV 599.22 VV 679.24 VV 316.08 VB 616.33 BV 213.13 VB 466.72 BB	5.0000e5 1883.5000 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 4.9999e5	0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066	137.1535 137.1535 137.1535 137.1535 137.1535 137.1535 137.1535 137.1535 137.1535 137.1535	o-Terphenyl	0.0076 9.5437 0.0064 0.0246 0.0045 0.0090 0.0147 0.0073 0.0046 0.0016	
		2707386.75	395541.28		30.3954	8229.2061		96.5763	

## Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1 3	7.876 11.466	98034.13 17975.50	7183.98 BV 1478.58 VV	1778.5000 1883.5000	0.5066 0.5066		2-FLUOROBIPHENYL o-Terphenyl	55.1218 9.5437	
		116009.63	8662.55		1.0132	11.7539	**************	64.6655	

END

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_874.TX0

### Chromatogram

Sample Name: 9510834-028

FileName

: DIESELT.ins

Start Time : 0.50 min Scale Factor: 1

: l:\data\tchrom\pest\hp\_t\T\_\_874.raw

End Time : 28.25 min Plot Offset: -15 mV

Sample #: SC ;W

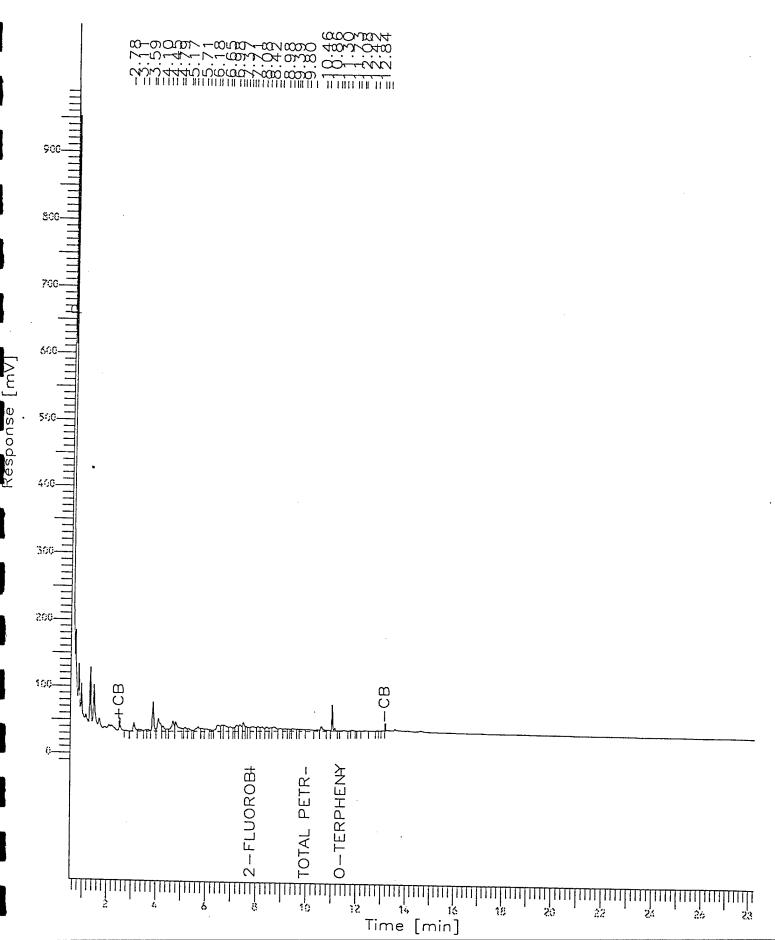
Date: 11/01/95 21:47

Time of Injection: 11/01/95 22:19 Low Point : -14.78 mV

High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1015 mV



Software Version: 3.2 <16020> Sample Name : 9510834-018 MS

Sample Number: KM ;W

Time : 11/01/95 22:22 Study

Operator : SEG

Instrument : HP\_T AutoSampler : HP 7673A

Channel: A A/D mV Range : 1000

: MODWD

Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 11/01/95 22:54

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_875.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_\_875.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc : L:\DATA\TCHROM\PEST\METHOOS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHOOS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

## Area/Concentration Report

Area/Concentration Report											
Peak #	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALUE	DIESEL AMT	. Component Name	Raw Amount		
1	2.779	97760.25	14902.77	ΒV	5.0000e5	0.5066	2448.7485		0 4000		
2	2.982	31040.78				0.5066	2448.7485		0.1955		
3	3.108	87608.56	16233.84			0.5066	2448.7485		0.0621		
4	3.299	87225.41		٧V	5.0000e5		2448.7485		0.1752 0.1745		
5	3.464	71855.78		W	5.0000e5	0.5066	2448.7485		0.1437		
6	3.575	58509.97		٧V	5.0000e5	0.5066			0.1437		
7	3.667	66354.78		W	5.0000e5	0.5066			0.1327		
8.	3.901	475083.13			5.0000e5	0.5066			0.9502		
9.	4.094	345428.09			5.0000e5	0.5066			0.6909		
10	4.269	165531.22			5.0000e5	0.5066			0.3311		
11	4.448	151648.91			5.0000e5	0.5066	2448.7485		0.3033		
12	4.543	210975.34			5.0000e5	0.5066	2448.7485		0.4220		
13	4.691	270390.19			5.0000e5	0.5066	2448.7485	,	0.5408		
14	4.784	117898.25	41726.03	V۷	5.0000e5	0.5066	2448.7485		0.2358		
15	4.869	/1/960.13	91311.33	V۷	5.0000e5	0.5066	2448.7485		1.4359		
16 17	5.068	133913.19	28895.74	W	5.0000e5	0.5066	2448.7485		0.2678		
18	5.171	196602.06			5.0000e5	0.5066	2448.7485		0.3932		
19	5.379 5.453	472750.22			5.0000e5	0.5066	2448.7485		0.9455		
20	5.703	345841.13		W	4.9999e5	0.5066	2448.7485		0.6917		
21	5.804	7/00// /7	151985.25		4.9999e5	0.5066	2448.7485		1.7290		
22	5.915	349844.63			5.0000e5	0.5066	2448.7485		0.6997		
23	6.012	141324.31 253120.58			5.0000e5	0.5066	2448.7485		0.2827		
24	6.080		61732.38 9 64501.14 9	VV	5.0000e5	0.5066			0.5062		
25	6.152	261107.80	71812.76	VV	5.0000e5	0.5066	2448.7485		0.5962		
26	6.224		79562.48	V V		0.5066			0.5222		
27	6.461	1719653.00	270206 88 1	V V	4.9999e5	0.5066			1.0984		
28	6.644	248393.16	63987.74	νν ·Λ/	5.0000e5 5.0000e5	0.5066			3.4393		
29	6.812	1085401.25	143867 00 1	νν ./\/	4.9999e5	0.5066 0.5066			0.4968		
30	6.894	870945.00	157221.20	N	5.0000e5	0.5066			2.1708		
31	7.039	458897.66	102412.04	N	5.0000e5	0.5066			1.7419		
32	7.158	1961164.00	310271.28 \	N	5.0000e5	0.5066			0.9178		
33	7.368	528816.50	94979.88 \	N	4.9999e5	0.5066	2448.7485 2448.7485		3.9223		
34	7.454	813084.63	164416.33	N	5.0000e5	0.5066	2448.7485		1.0576		
35	7.536	474678.13	128832.63 \	N	5.0000e5	0.5066	2448.7485		1.6262		
36	7.615	1461219.50	149138.92 V	N	4.9999e5	0.5066	2448.7485		0.9494		
37	7.815	1992107.88	456842.34 V	/V	1778.5001	0.5066	2448.7485	2-FLUOROBIPHENYL	2.9224		
38	8.037	1885580.38	224709.53 V	/V	5.0000e5	0.5066	2448.7485	Z-redokobirnenie			
39	8.161	652018.31	145187.00 V	<b>/</b> V	5.0000e5	0.5066	2448.7485		3.7712		
40	8.236	474216.63	124281.48 V	ľV	5.0000e5	0.5066	2448.7485		1.3040		
41	8.352	1389300.25	277854.34 v	V	5.0000e5	0.5066	2448.7485		0.9484 2.7786		
42	8.429	1405182.88	410363.59 v	V	5.0000e5	0.5066	2448.7485				
43	8.495	634265.50	180748.52 V	<b>/</b> V	5.0000e5	0.5066	2448.7485		2.8104 1.2685		
44	8.565	530785.19	137192.53 V	7	5.0000e5		2448.7485		1.0616		
45	8.667	1249745.50	198250.64 V	V	5.0000e5	0.5066	2448.7485		2.4995		
46	8.777	1260654.63	152561.89 V	٧	5.0000e5	0.5066	2448.7485		2.5213		
47	9.011	2616639.50	424069.19 V	V	4.9999e5	0.5066	2448.7485		5.2333		
48 49	9.154	955963.13	146393.66 V	7	5.0000e5	0.5066	2448.7485		1.9119		
77	9.278	1419692.88	160185.67 V	<b>V</b>	5.0000e5	0.5066	2448.7485		2.8394		

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75	9.768 9.891 10.004 10.099 10.270 10.387 10.603 10.771 10.888 11.089 11.302 11.552 11.686 11.819 11.914 11.919 12.204 12.318 12.423 12.548 12.662 12.838 13.072	1275001.38 1097166.88 569385.19 1549957.25 556572.63 513934.38 622905.25 1484350.75 527386.94 524546.50	349455.50 VV 127154.09 VV 162264.53 VV 117685.82 VV 278828.75 VV 100406.85 VV 112644.76 VV 10386.04 VV 206631.19 VV 81664.58 VV 83497.92 VV 137838.52 VV 60539.72 VV 68929.86 VV 41838.41 VV 45063.60 VV 32566.94 VV 33256.32 VV 17493.67 VV 14976.60 VV 13537.94 VV 9100.69 VV 5600.41 VV 4003.45 VB 1143.63 BB	5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 4.9999e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5 5.0000e5	0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066 0.5066	2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485 2448.7485	Total Petroleum Hydr	1.8826 3.5697 2.5500 2.1943 320.1491 3.0999 1.1132 1.0279 1.2458 2.9687 1.0548 1.0491 2.9716 391.2564 0.8734 0.5084 0.5133 0.2919 0.4902 0.2300 0.1926 0.1779 0.1005 0.0796 0.0481
1		48337876.00	8.15e6	· • • • • • • • • • • • • • • • • • • •	37.9943	1.8365e5		0.0098  1921.5902

## Group Report For : SURROGATES

eal #	k Ret Time (min)	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
3	7.815 11.302	1992107.88 736931.44	456842.34 60539.72	BV VV	1778.5001 1883.5000	0.5066 0.5066	138.2504 138.2504	2-FLUOROBIPHENYL o-Terphenyl	1120.1056 391.2564	·
_		2729039.25	517382.06			1.0132	276.5008		1511.3621	

port Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_875.TXO

### Chromatogram

Sample Name : 9510834-038 MS

FileName : l:\data\tchrom\pest\hp\_t\T\_\_875.raw

: DIESELT.ins

Start Time : 0.50 min Scale Factor:

End Time : 28.25 min

Plot Offset: -12 mV

Sample #: KM ;W

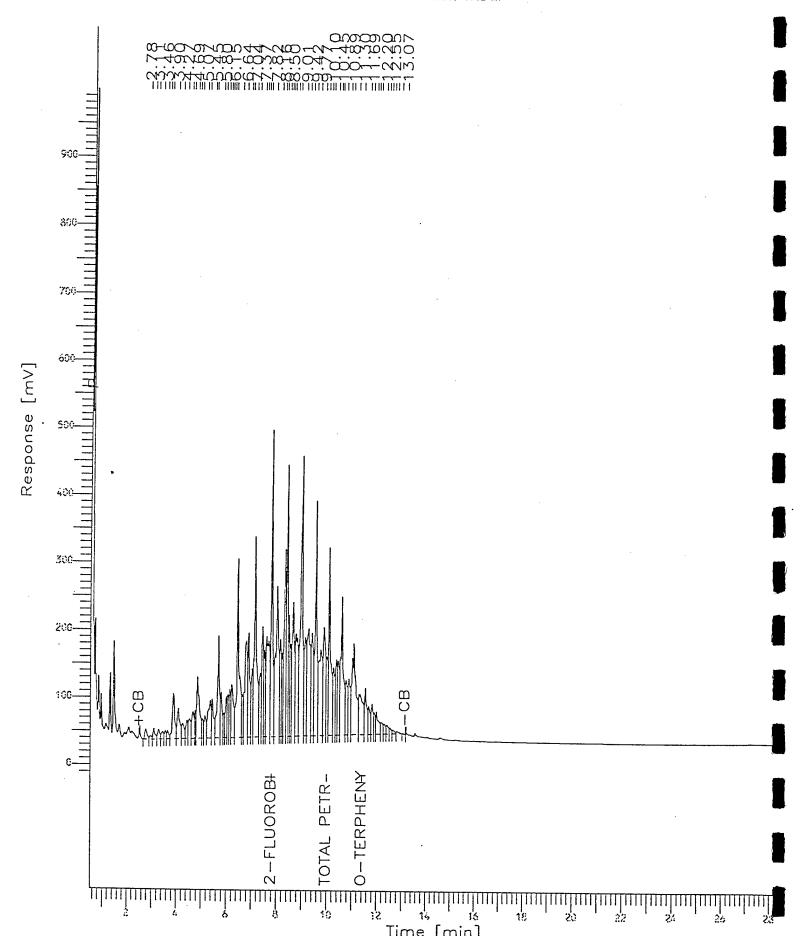
Date: 11/01/95 22:22

Time of Injection: 11/01/95 22:54

Low Point : -11.67 mV High Point: 1000.00 mV

Page 1 of 1

Plot Scale: 1012 mV



Software Version: 3.2 <16C2O>

Sample Name : 9510B34-0 B MSD

Sample Number: KMD;W Operator : SEG

Time : 11/01/95 22:57

Study : MODWD

Instrument : HP\_T AutoSampler : HP\_7673A Rack/Vial : 0/0

Channel : A A/D mV Range: 1000

Interface Serial #: 4118271220 Data Acquisition Time: 11/01/95 23:29

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\T\_\_876.raw
Result File : l:\data\tchrom\pest\hp\_t\T\_876.rst Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

# Area/Concentration Report

Peak	Ret Time	Area	Height	BL	Area/	RE VALUE	DIESEL AMT	. Component	Raw
#	[min]	[uV-sec]	[uV]		Amount	*** *******	PPM	Name	Amount
		!					• • • • • • • • • • • • • • • • • • • •		Allount
<b>—</b> 1	2.780	98648.44			5.0000e5	0.5066	2473.4265		0.1973
2	2.982	31032.47			5.0000e5	0.5066	2473.4265		0.0621
3	3.109	88557.84		V۷	4.9999e5	0.5066	2473.4265		0.1771
4	3.300	87583.78			5.0000e5	0.5066	2473.4265		0.1752
<b>5</b>	3.465	71722.41			5.0000e5	0.5066	2473.4265		0.1434
6	3.576	58517.69			5.0000e5	0.5066	2473.4265		0.1170
<b>7</b>	3.667	66223.41			5.0000e5	0.5066	2473.4265		0.1325
8 9·	3.901	480098.75			5.0000e5	0.5066	2473.4265		0.9602
10	4.094	348588.53			5.0000e5	0.5066	2473.4265		0.6972
11	4.270	166011.47			5.0000e5	0.5066	2473.4265		0.3320
12	4.449 4.543	151782.19			5.0000e5	0.5066	2473.4265	× .	0.3036
13	4.543	211751.31			5.0000e5	0.5066	2473.4265		0.4235
14	4.784	271140.31	39966.75	W	5.0000e5	0.5066	2473.4265		0.5423
15	4.869	13/413.14	42139.15	VV	5.0000e5	0.5066	2473.4265		0.3148
_16	5.069	17/07/ 10	92291.48	VV	5.0000e5	0.5066	2473.4265		1.3738
17	5.172	104//6.19	28944.91 33259.22	VV	4.9999e5	0.5066	2473.4265		0.2682
18	5.379	170410.44	56835.46	VV	5.0000e5	0.5066	2473.4265		0.3928
19	5.453	3/,720/ 8/	58439.79	VV	5.0000e5	0.5066	2473.4265		0.9493
20	5.703	872015 54	153367.55	VV	5.0000e5	0.5066	2473.4265		0.6946
21	5.805	351077 71	69333.57	۷۷	5.0000e5	0.5066	2473.4265		1.7458
22	5.915	140851 00	37069.31	VV	4.9999e5	0.5066	2473.4265		0.7040
23	6.012	253751.95	62150.72	W	5.0000e5	0.5066	2473.4265		0.2817
24	6.079		64866.12	VV	4.9999e5	0.5066	2473.4265		0.5075
	6.152	263207.56	72613.20	W	4.9999e5 5.0000e5	0.5066	2473.4265		0.5998
25 26 7	6.224	552010.88	80070.78	VV	4.9999e5	0.5066 0.5066	2473.4265		0.5264
7	6.462	1739090.00	274817 53	W	5.0000e5	0.5066	2473.4265		1.1040
28	6.643	188462_63	64281.43	w	5.0000e5	0.5066	2473.4265 2473.4265		3.4782
_29	6.813	1159718.13	145979.09	w	5.0000e5	0.5066	2473.4265		0.3769
50 51	6.894	880243.13	158761.77	vv	5.0000e5	0.5066	2473.4265		2.3194
1	7.039	463366.50	103169.41	w	5.0000e5		2473.4265		1.7605
-32	7.158	1987702.13	316040.13	w	5.0000e5	0.5066	2473.4265		0.9267
33	7.368	534176.25	95843.83	w	5.0000e5	0.5066	2473.4265		3.9754 1.0684
4 5	7.454	824772.00	166768.92	W	5.0000e5	0.5066	2473.4265		1.0004
5	7.535	480623.75	130807.57	W	5.0000e5	0.5066	2473.4265		1.6495 0.9613
6	7.615	1480853.00	151449.80	W	5.0000e5	0.5066	2473.4265		2.9617
37	7.814	2027831.88	463481.69	W	1778.5000	0.5066		2- Et Hopop touchivi	11/0 1007
38	8.037	1913743.25	228774.36	W	5.0000e5	0.5066	2473.4265		3.8275
9	8.161	660234.19	146902.61	W	4.9999e5	0.5066	2473.4265		1.3205
0	8.235	479396.25	126157.61	V۷	5.0000e5	0.5066	2473.4265		0.9588
41	8.352	1410673.50	282048.66	٧٧	5.0000e5	0.5066	2473.4265		2.8214
42	8.428	1433090.25	419133.38	W	5.0000e5	0.5066	2473.4265		2.8662
3 4 45	8.495	642358.25	183728.17	W	5.0000e5	0.5066	2473.4265		1.2847
<b>1</b>	8.564	537135.25	139226.14	W	5.0000e5	0.5066	2473.4265		1.0743
	8.667	1266712.38	200966.59	W	4.9999e5	0.5066	2473.4265		2.5334
46 -47	8.778	1275216.50	155300.91	W	5.0000e5	0.5066	2473.4265		2.5504
7 8	9.011	2656771.75	435144.31	W	5.0000e5	0.5066	2473.4265	2 - I LOUNGBIF RENTL	5.3135
9	9.154 9.279	966542.00	147940.67	VV	5.0000e5	0.5066	2473.4265	•	1.9331
<b></b> 7	7.214	1435895.00	161842.52	V۷	5.0000e5	0.5066	2473.4265		2.8718
									_

50	9.419	947902.50	154469.17 VV	5.0000e5	0.5066	2473.4265	·	1.8958
51	9.569		358030.91 VV	5.0000e5	0.5066	2473.4265		3.6181
52	9.768		128562.43 VV	5.0000e5	0.5066	2473.4265		2.5674
53	9.892		163804.23 VV	5.0000e5	0.5066	2473.4265		3.3529
54	10.099		283768.41 VV	1778.5000	0.5066	2473.4265	Total Petroleum Hydr	882.4628
55	10.271		100915.40 VV	5.0000e5	0.5066	2473.4265		1.1184
56	10.388		113557.72 W	4.9999e5	0.5066	2473.4265		1.0326
57	10.455		111013.73 VV	5.0000e5	0.5066	2473.4265		1.2489
58	10.604		210266.77 VV	5.0000e5	0.5066	2473.4265		2.9977
59	10.773	458065.78	81745.68 VV	5.0000e5	0.5066	2473.4265		0.9161
60	10.890	596656.19	84120.03 VV	5.0000e5	0.5066	2473.4265	•	1.1933
61	11.091		138922.08 VV	5.0000e5	0.5066	2473.4265		2.8802
62	11.303	787938.06	60624.36 VV	1883.5000	0.5066	2473.4265	o-Terphenyl	418.3372
63	11.553	436595.88	69278.56 VV	5.0000e5	0.5066	2473,4265	•	0.8732
64	11.687	253160.38	41740.55 VV		0.5066	2473.4265		0.5063
65	11.821	255819.31	44932.90 VV	4.9999e5	0.5066	2473.4265		0.5116
66	11.915	145224.34	32295.87 VV	5.0000e5	0.5066	2473.4265		0.2905
67	12.000	244184.81	33264.87 VV	5.0000e5	0.5066	2473.4265		0.4884
68	12.205	113983.22	17230.25 VV	5.0000e5	0.5066	2473.4265		0.2280
69	12.319	95244.16	14840.94 VV	5.0000e5	0.5066	2473.4265		0.1905
70	12.427	88083.56	13426.25 VV		0.5066	2473.4265		0.1762
71	12.550	49549.56	8911.79 VV		0.5066	2473.4265		0.0991
72	12.666	39203.91	5532.94 VV	5.0000e5	0.5066	2473.4265		0.0784
73	12.840	23420.13	3895.69 VB	5.0000e5	0.5066	2473.4265		0.0468
74	13.073	4804.00			0.5066	2473.4265		0.0096
		48825016.00	8.14e6		37.4877	1.8303e5		2529.8718

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height E [uV]	L Area/ Amount	RF VALUE	DIESEL AMT. PPM	Component Name	Raw Amount	
1	7.814 11.303			v 1778.5000 v 1883.5000			2-FLUOROBIPHENYL o-Terphenyl	1140.1923 418.3372	
		2815770.00	524106.03		1.0132	285.2882		1558.5294	

ENU

Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\T\_\_876.TX0

### Chromatogram

Sample Name : 9510B34-008 MSD
FileName : l:\data\tchrom\pest\hp\_t\T\_\_876.raw

Method : DIESELT.ins

Start Time : 0.50 min Scale Factor: 1

End Time : 28.25 min

Plot Offset: -11 mV

Sample #: KMD;W

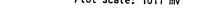
Date: 11/01/95 22:57

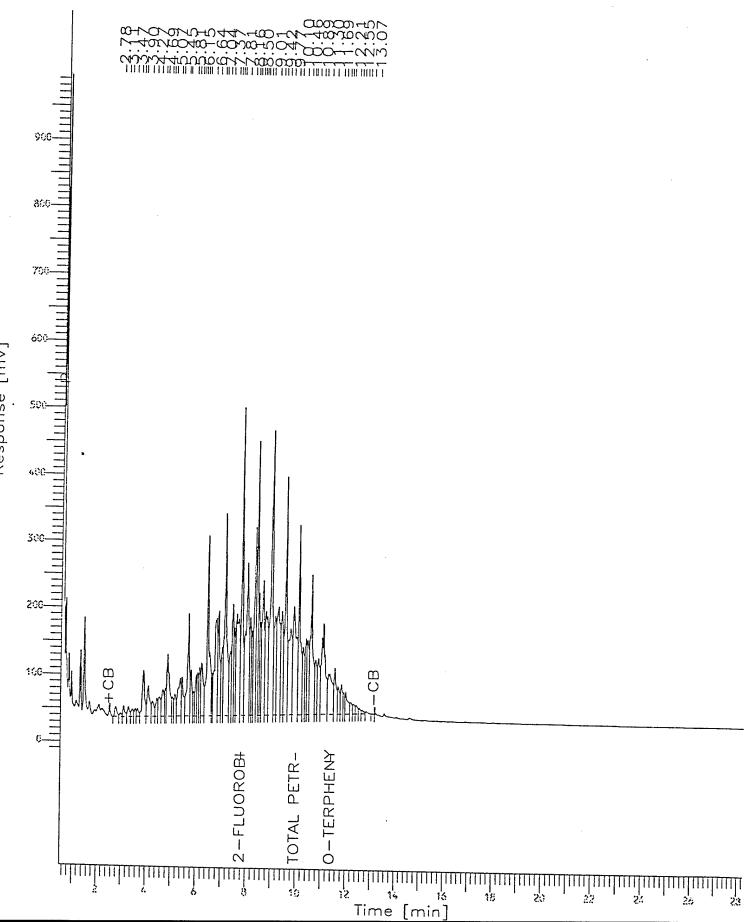
Time of Injection: 11/01/95 23:29

Low Point: -11.29 mV Plot Scale: 1011 mV

High Point: 1000.00 mV

Page 1 of 1





Software Version: 3.2 <16C20>

Sample Name : 951030CXB1

Sample Number: B ;W : SEG/DR Operator

: 11/03/95 07:33 Time

Study : MODWM

A/D mV Range: 1000 Channel: B

Instrument : HP\_T
AutoSampler : HP 7673A Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 11/03/95 07:03

Delay Time : 0.50 min.
End Time : 28.25 min.
Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\TT\_\_138.raw
Result File : l:\data\tchrom\pest\hp\_t\TT\_\_138.rst
Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc : L:\DATA\TCHROM\PEST\METHOOS\DIESELTT.smp Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000

: 100.00 Area Reject Dilution Factor : 1.00

### Area/Concentration Report

	Ret Time	Area	Height B		RF	VALUE	DIESEL		Component Name	aw ount	
#	[min]	[uV-sec]	[uV]	ount	. <b></b> .			1 • • • • • •	,	 	
1	2.771	16626.50	2466.99 B	000e5		0.5103	20.9	9087		0.0333	
2	3.022	5289.50	1287.01 8	 000e5		0.5103		780		0.0106	
3	3.182	30475.50	8573.06 V	 000e5		0.5103		9087		0.0610	
4	3.291	49547.00	12073.62 V	999e5		0.5103		7087		0.0991	
5	3.512	35751.50	9634.44 B	000e5		0.5103		9087		0.0715	
6	3.621	17591.75	5513.45 V	000e5		0.5103		9087		0.0352	
7	3.749	20311.75	4609.59 V	 000e5		0.5103	20.	7809		0.0406	
8	3.874	6406.92	1615.31 V	0000e5		0.5103		9087		0.0128	
9.		3601.13	1044.35 V	0000e5		0.5103		9087		0.0072	
10	4.235	561.00	231.32	999e5		0.5103		9087		0.0011	
11	4.534	1641.97	437.99 E	0000e5		0.5103		9087		0.0033	
12	4.743	4419.00	1093.32 E	 0000e5		0.5103	20.	9087		0.0088	
13	5.063	1683.00	321.39 E	 0000e5		0.5103		9087		0.0034	
14	5.345	436.27	122.35 E	0000e5		0.5103	20.	9087		0.0009	
15	5.465	1584.52	369.43 \	0000e5		0.5103		9087		0.0032	
16	5.526	1937.91	528.28 \	0000e5		0.5103	20.	9087		0.0039	
17	5.622	743.30	216.98 \	0000e5		0.5103	20.	9087		0.0015	
18	5.788	5495.31	897.22	0.0000		0.5103		9087	2-FLUOROBIPHENYL	2.7895	
19	6.018	1537.72	359.26 \	0000e5		0.5103	20.	9087		0.0031	
20	6.408	60461.00	2689.28	0000e5		0.5103	20.	9087		0.1209	
21	6.870	21702.69	1278.14	9999e5		0.5103	20.	9087		0.0434	
22	7.418	1720.00	145.99	0000e5		0.5103	3 20.	9087		0.0034	
23	7.786	755.97	145.91	0000e5		0.5103	3 20.	9087		0.0015	
24	7.950	2312.50	231,13	9.9999		0.5103		9087	Total Petroleum Hyd	 1.1739	
25	8.421	688.06	117.81	0000e5		0.5103	3 20.	9087		0.0014	
26	8,603	821.13	133.92	0.0000		0.5103	3 20.	9087	o-Terphenyl	0.4168	
27	8.922	504.88	90.08	0000e5		0.5103	3 20.	9087		0.0010	
28	9.121	3846.00	463.53	0000e5		0.5103	3 20.	9087		0.0077	
29	9.517		17975.54	0000e5		0.5103	3 20.	9087		0.2037	
30	12.536	9449.00	67.18	0000e5		0.5103	3 20.	9087	o-Terphenyl	 0.0189	
		409732.75	74733.88	 		15.3090	627.	2600		5.1824	

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	5.788 8.603	5495.31 821.13	897.22 BV 133.92 VV				2-FLUOROBIPHENYL o-Terphenyl	2.7895 0.4168	
		6316.44	1031.14		1.0206	0.6447		3.2063	

END  Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\TT\_\_138.TX0

Chromatogram Sample Name: 951030CXB1 Sample #: B ;W Date : 11/03/95 07:33 : l:\data\tchrom\pest\hp\_t\TT\_\_138.raw FileName Page 1 of 1 Method : DIESELT.ins Time of Injection: 11/03/95 07:03 Start Time : 0.50 min End Time : 28.25 min Scale Factor: 1 Low Point : 13.31 mV High Point : 553.66 mV Plot Offset: 13 mV Plot Scale: 540 mV 2.54 550 500 350 Response [mV] 300 CB TOTAL PETR-O-TERPHENY 2-FLUOROB

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18

20

SS

Software Version: 3.2 <16C2O>

Sample Name : 951030CXBSD Time : 11/03/95 06:25 Sample Number: KBD;W Study : MODWM

Operator : SEG/DR

operator : SEG/DR

HP\_T Channel: B A/D mV Range: 1000

Instrument : HP\_T AutoSampler : HP 7673A Rack/Vial : 0/0

Interface Serial #: 4118271220 Data Acquisition Time: 11/03/95 05:55

Delay Time : 0.50 min. End Time : 28.25 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\pest\hp\_t\TT\_\_136.raw
Result File : l:\data\tchrom\pest\hp\_t\TT\_\_136.rst
Instrument File: L:\DATA\TCHROM\PEST\METHODS\DIESELT.ins
Process File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.prc
Sample File : L:\DATA\TCHROM\PEST\METHODS\DIESELTT.smp
Sequence File : L:\DATA\TCHROM\PEST\METHODS\DIESELT.seq

Inj. Volume : 1 ul Sample Amount : 1.0000 Area Reject : 100.0

Dilution Factor : 1.00

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### Area/Concentration Report

Peak	Ret Time [min]	Area [uV-sec]	Height [uV]	BL	Area/ Amount	RF VALUE	DIESEL AMT.	Name	Raw Amount	
1	2.661	28239.97	12003.29	ВВ	5.0000e5	0.5103		2-FLUOROB I PHENYL	0.0565	
2	2.803		30384.68		5.0000e5	0.5103			0.3129	
3	2.887		26646.45		5.0000e5	0.5103			0.1873	
4 5	3.182		124169.66		5.0000e5	0.5103			1.5083	
	3.292	796493.44	178775.13	٧E	5.0000e5	0.5103			1.5930	
6	3.416	71814.00	21928.15	ΕV	5.0000e5	0.5103			0.1436	
7	3.513	1185363.13	316287.44	VV	4.9999e5	0.5103			2.3707	
8 9	3.622	718874.13	168450.09	W	5.0000e5	0.5103			1.4378	•
9	3.752	737976.88	148193.91	VV	5.0000e5	0.5103			1.4760	
10	3.871	329721.41	92472.74	VV	4.9999e5	0.5103			0.6594	
11	3.978	484770.38	71001.66	W	5.0000e5	0.5103			0.9695	
12 13 14	4.234	1422735.63	257263.95	VV	5.0000e5	0.5103			2.8455	
13	4.360	537985.31	91656.89	W	5.0000e5	0.5103			1.0760	
	4.521	450727.91	76944.06	VV	5.0000e5	0.5103			0.9015	
15	4.627	677050.63	150654.58	VV	<b>4.</b> 9999e5	0.5103			1.3541	
16 17 18	4.746		64482.80		<b>4.</b> 9999e5	0.5103			0.5455	
17	4.857	93250.28			5.0000e5	0.5103			0.1865	
18	4.937	86428.14	23141.29		5.0000e5	0.5103			0.1729	
19	5.038	54503.39	15907.39		4.9999e5	0.5103			0.1090	
20	5.117	147100.28	26691.96		5.0000e5	0.5103			0.2942	
21 22 23	5.229	85851.69			5.0000e5	0.5103			0.1717	
22	5.390	89520.81	8400.81		5.0000e5	0.5103			0.1790	
	5.783	17648.56	2218.87		1970.0000	0.5103		2-FLUOROBIPHENYL	8.9587	
24	6.014	2300.75	613.84		5.0000e5	0.5103			0.0046	
25 26 27	6.343	63873.50	3454.05		5.0000e5	0.5103			0.1278	
26	6.868	12348.63	978.31		5.0000e5	0.5103			0.0247	
27	7.420	1105.50	128.88		4.9999e5	0.5103			0.0022	
28	7.785	694.31	138.22		5.0000e5	0.5103			0.0014	
29	7.948	2492.25	265.02		1970.0000	0.5103	485.1040	Total Petroleum Hydr	1.2651	
/30 31	8.416	1271.31	194.26		5.0000e5	0.5103	485.1040		0.0025	
31	8.591	898.63	174.26		1970.0000	0.5103	485.1040	o-Terphenyl	0.4562	
32	8.928	408.34	108.17		5.0000e5	0.5103	485.1040		0.0008	
33	9.119	5136.63	678.20		5.0000e5	0.5103	485.1040		0.0103	
34 35	9.516	110511.00	20229.23		5.0000e5	0.5103	485.1040		0.2210	
35	12.534	12188.00	82.69	BB	5.0000e5	0.5103	485.1040	o-Terphenyl	0.0244	
·	•••••	9506252.00	1.96e6			17.8605	16978.6484		29.6503	••••••

roup Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	DIESEL AMT.	Component Name	Raw Amount	
1 3	5.783 8.591	17648.56 898.63	2218.87 BV ,174.26 VB	1970.0000 1970.0000	0.5103 0.5103	******	2-FLUOROBIPHENYL o-Terphenyl	8.9587 0.4562	
		18547.19	2393.13		1.0206	1.8929		9.4148	

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END	=======================================
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Report Stored in ASCII File: l:\data\tchrom\pest\hp\_t\TT\_\_136.TX0

### Chromatogram

Sample #: KBD;W

Sample Name: 951030CXBSD

: l:\data\tchrom\pest\hp\_t\TT\_\_136.raw Page 1 of 1 Date: 11/03/95 06:25 Method : DIESELT.ins Time of Injection: 11/03/95 05:55 Start Time : 0.50 min End Time : 28.25 min Plot Offset: 7 mV Low Point : 7.16 mV Scale Factor: High Point: 703.86 mV Plot Scale: 697 mV Ś Ø 700-650-600 550-500-450 CB ERPHENY PETR-2-FLUOROB4 TOTAL 1 Ó 16 20 Time [min]

Software Version: 3.2 <16C20>

Sample Name : LCS\_1.0
Sample Number: TL ;W;1

Time : 11/03/95 12:01 Study : MODWG;1;PQL

Operator : VHZ

Instrument : HP\_S AutoSampler : NONE

Channel: A A/D mV Range: 1000

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : 4148271296 Data Acquisition Time: 11/02/95 23:43

Delay Time : 0.00 min. End Time : 18.21 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_s\s\_\_725.raw
Result File : l:\data\tchrom\btex\hp\_s\s\_\_725.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHOOS\BTEXS.ins
Process File : L:\DATA\TCHROM\BTEX\METHOOS\8015S.prc
Sample File : L:\DATA\TCHROM\BTEX\METHOOS\SWGO9185.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHOOS\BTEXS.seq

Inj. Volume : 2 ul Sample Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

0.73

### PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	F	RAW AMT	RAW AMT.
		[47 300]		Allouit		rrn	Name	PPB	PURFID PPM
1	1.884	74916.00	14967.25 BB	1.0000e6	2.5672	1.2488		0.0749	1.2488
2	2.785	287667.50	57677.03 BB	9.9999e5	2.5672	1.2488		0.2877	
3	4.484	344524.78	38279.95 BV	1.0000e6	2.5672	1.2488		0.3445	1.2488
4	4.778	112681.88	17124.89 VV	1.0000e6	2.5672	1,2488		0.1127	
5	4.986	215145.34	35437.47 VB	6176.6231	2.5672	1,2488	Benzene	34.8322	
6	5.328	270658.00	43955.27 BB	3368.5361	2.5672	1.2488	1,4-DIFLUOROBENZENE	80.3489	1.2488
7	5.863	812271.00	105220.84 BB		2.5672	1.2488	TFT	0.0000	1.2488
8	8.191	653333.50	74467.30 BB	6107.3774	2.5672	1.2488	Toluene	106.9745	1.2488
9	11.255	210321.50	68504.78 BV	6052.6133	2.5672	1.2488	Ethyl Benzene	34,7489	1.2488
10	11.331	874641.00	285375.97 VB	4955.0259	2.5672	1.2488	m and p Xylene	176.5159	
11	11.688	449822.47	162113.64 BB	6050.5894	2.5672	1.2488	o-Xylene	74.3436	1.2488
12	12.141	156290.00	64965.86 BB	1765.0280	2.5672	1.2488	4-BROMOFLUOROBENZENE	88.5482	1.2488
13	12.512	1790.86	868.33 BV	5840.7344	2.5672	1.2488	1,3,5-Trimethylbenze	0.3066	1.2488
14	12.594	• 376954.13	150440.95 VE	5623.7964	2.5672	1.2488	1,2,4-Trimethylbenze	67.0284	1.2488
15	12.866	5395.00	871.61 EB	5434.7412	2.5672	1.2488	1,2,3-Trimethylbenze	0.9927	1.2488
16	13.630	3120.50	614.74 BB	1.0000e6	2.5672	1.2488		0.0031	1.2488
17	13.786	1429.50	352.88 BB	1.0000e6	2.5672	1.2488		0.0014	1.2488
18	14.016	5631.02	2301.16 BB	1.0000e6	2.5672	1.2488		0.0056	1.2488
19	14.279	1359.00	330.96 BB	1.0000e6	2.5672	1.2488		0.0014	1.2488
20	14.582	2026.05	500.80 BV	1.0000e6	2.5672	1.2488		0.0020	1.2488
21	14.734	1182.95	382.81 VB	1.0000e6	2.5672	1.2488		0.0012	1.2488
22	15.277	1513.00	774.76 BB	1.0000e6	2.5672	1.2488		0.0015	1.2488
23	15.411	1758.00	935.72 BB	1.0000e6	2.5672	12488		0.0018	1.2488
		4864433.00	1.12e6		59.0456	28.7223	****************	665.4775	28.7223

Group Report For : SURROGATES

Feak #	Ret Time [min]	Area (uV-sec)	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	5.328 5.863 12.141	270658.00 812271.00 156290.00	43955.27 BB 105220.84 BB 64965.86 BB		2.5672 2.5672 2.5672	0.3181	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	80.3489 0.0000 88.5482	
		1239219.00	214141.97		7.7016	0.9544		168.8970	0.9544

END

Chromatogram ample Name : LCS\_1.0 Sample #: TL ;W;1 : l:\data\tchrom\btex\hp\_s\S\_\_\_725.raw FileName Page 1 of 1 Date: 11/03/95 12:01 Method : BTEXS.ins Time of Injection: 11/02/95 23:43 tart Time : 0.00 min End Time : 18.21 min Low Point : 1.93 mV cale Factor: 1 High Point : 300.69 mV Plot Offset: 2 mV Plot Scale: 299 mV 1.26 1.69 -11.69 -12.14 =12.51 -12.87 =13.63 =14.98 =14.58 5.28 300-Ti 280 260 240 160 THE THE PROPERTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY O 7111 ETHYLBEN = 0-XYLENE - 4-3-BROMOFE - 1,2,3-18| BENZENE 1,4-DIFLU TFT TOLUENE 16 18 Retention Time

Software Version: 3.2 <16C2O>

Sample Name : STD\_09 Time : 11/03/95 12:32 Sample Number: TC;W;1 Study : MODWG;1;PQL Operator : VHZ

Instrument : HP\_S

P\_S Channel: A A/D mV Range: 1000

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : 4148271296 Data Acquisition Time: 11/03/95 12:14

Delay Time : 0.00 min. End Time : 18.21 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_s\s\_\_726.raw
Result File : l:\data\tchrom\btex\hp\_s\s\_\_726.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHOOS\BTEXS.ins
Process File : L:\DATA\TCHROM\BTEX\METHOOS\8015S.prc
Sample File : L:\DATA\TCHROM\BTEX\METHOOS\SWG09185.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHOOS\BTEXS.seq

Inj. Volume : 2 ul
Sample Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

bitution Factor : 1.00

PURFID Area Percent Report

6.85

RAW AMT.

PURFID PPM

0.0019

0.0015

0.0017

583.8779

1.1742

1.1742

1.1742

1.1742

22.3100

Peak Ret Time Area Height BL Area/ RF VALUE PURFID AMT. Component RAW AMT # [min] [uV-sec] [uV] Amount PP**M** Name PPB 1.887 16710.48 BB 9.9999e5 80952.00 2.5672 1.1742 0.0810 2 2.788 385808.00 1.0000e6 78389.70 BB 2.5672 1.1742 0.3858 3 4.486 343574.88 38137.93 BV 1.0000e6

1.1742 2.5672 1.1742 1.1742 0.3436 4.781 112014.61 17162.60 VV 1.0000e6 2.5672 1.1742 0.1120 1.1742 38550.95 VB 6214.3931 4.989 233180.50 2.5672 1.1742 Benzene 37.5227 1.1742 5.330 45024.74 BB 3389.1345 274572.00 2.5672 1.1742 1,4-DIFLUOROBENZENE 1.1742 81.0154 7 5.865 817238.00 106579.49 BB -----2.5672 1.1742 TFT 0.0000 1.1742 8.194 664491.00 76472.36 BB 6144.7236 2.5672 1.1742 Toluene 108.1401 1.1742 9 11.251 210154.41 69444.25 BV 6089.6250 2.5672 1.1742 Ethyl\_Benzene 34.5102 1.1742 10 • 11.329 145849.88 VB 4985.3252 451527.59 1.1742 m and p Xylene 2.5672 90.5713 1.1742 11 11.684 447880.00 167411.41 BE 6087.5874 2.5672 1.1742 o-Xylene 73.5727 1.1742 1947.00 12 11.967 662.79 EB 1.0000e6 2.5672 1.1742 0.0020 1.1742 13 12.136 159760.00 71320.03 BB 1775.8210 2.5672 1.1742 4-BROMOFLUOROBENZENE 89.9640 1.1742 12.590 155221.47 BV 5658.1856 \* 381544.00 2.5672 1.1742 1,2,4-Trimethylbenze 67.4322 1.1742 15 12.865 1186.00 1.1742 1,2,3-Trimethylbenze 439.94 VB 5467.9741 2.5672 0.2169 1.1742 16 13.627 2937.00 486.59 BB 1.0000e6 2.5672 1.1742 0.0029 1.1742

2.5672

2.5672

1.1742

1.1742

1739.00 938.84 BB 1.0000e6 2.5672 1.1742 4573892.00 1.03e6 48.7768 22.3100

1.0000e6

Group Report For : SURROGATES

1874.00

1512.00

17

18

19

14.014

15.277

15.411

Peak #	Ret Time [min]	Area [uV-sec]	Height BL Area/ [uV] Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	5.330 5.865 12.136	274572.00 817238.00 159760.00	45024.74 BB 3389.13 106579.49 BB71320.03 BB 1775.82	2.5672	0.3213	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	81.0154 0.0000 89.9640	0.3213
		1251570.00	222924.27	7.7016	0.9630		170 070/	0.570

568.35 BB

781.40 BB 1.0000e6

Report Stored in ASCII File: l:\data\tchrom\btex\hp\_s\S\_\_726.TX0

Sample #: TC ;W;1 Date : 11/03/95 12:32 ample Name: STD\_09 Page 1 of 1 FileName : l:\data\tchrom\btex\hp\_s\S\_\_726.raw Method : BTEXS.ins Time of Injection: 11/03/95 12:14 tart Time : 0.00 min End Time : 18.21 min Low Point: 7.76 mV High Point: 184.42 mV ale Factor: Plot Offset: 8 mV Plot Scale: 177 mV -12.89 -13.63 -14.01=15.28-4.49 -5.33 -5.87 -8.19170 Response [HIV] TH **11**1 ETHYL\_BEN O-XYLENE BENZENE 1,4-DIFLU TFT Retention Time [min]

Software Version: 3.2 <16C20>

Sample Name : 9510D68-01A MS Sample Number: KM ;W;1

Time : 11/03/95 01:34 Study : MODWG;1;PQL

Operator

: VHZ

Instrument : HP\_S AutoSampler : NONE

Channel : A A/D mV Range : 1000

Rack/Vial : 0/0

Interface Serial # : 4148271296 Data Acquisition Time: 11/03/95 01:15

Delay Time : 0.00 min. End Time : 18.21 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_s\S\_\_728.raw Result File : l:\data\tchrom\btex\hp\_s\S\_\_728.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXS.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\8015S.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\SWG09185.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXS.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

0.56

### PURFID Area Percent Report

Doole	Dat Time								
# 	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	1.915 2.036 2.463 2.610 2.784 4.476 4.770 4.979 5.320 5.856 8.191 11.255 11.332 11.686 12.135 12.352 12.501 12.583 12.852 13.997 15.279 15.411	323551.97 16253.00 4074.75 2586.25 74118.00 66138.63 20316.06 169722.34 273089.00 812808.00 465286.00 136983.03 311204.50 316897.00 161952.00 2445.00 1576.39 257392.03 2310.58 1319.00 2916.42	94945.08 BE 2400.38 EB 1061.19 BV 607.79 VB 15925.86 BB 7532.00 BV 3251.99 VV 28145.61 VB 44215.68 BB 105469.21 BB 52974.18 BB 46102.84 BV 99619.94 VB 118016.35 BB 71998.03 BE 536.19 EB 775.31 BV 113179.05 VV 683.81 VB 461.76 BB 1010.94 BV 988.74 VB	9.9999e5 1.0000e6 1.0000e6 1.0000e6 9.9999e5 1.0000e6 1.0000e6 6180.7070 3370.7629 6111.4141 6056.6143 4958.3013 6054.5889 1766.1948 5844.5952 1.0000e6 5627.5142 5438.3335 1.0000e6 9.9999e5 1.0000e6	2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672	0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792	Benzene 1,4-DIFLUOROBENZENE TFT	0.3236 0.0163 0.0041 0.0026 0.0741 0.0661 0.0203 27.4600 81.0170 0.0000 76.1339 22.6171 62.7643 52.3400 91.6954 0.4183 0.0016 45.7381 0.4249 0.0013 0.0029	0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792 0.8792
		3424862.50	809901.94		56.4784	19.3431	• • • • • • • • • • • • • • • • • • • •	0.0019 461.1239	0.8792 19.3431

Group Report For : SURROGATES

Peak . #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	5.320 5.856 12.135	273089.00 812808.00 161952.00	44215.68 BB 105469.21 BB 71998.03 VE		2.5672 2.5672 2.5672	0.3204	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	81.0170 0.0000 91.6954	0.3204
		1247849.00	221682.92		7.7016	0.9610		172.7124	0.9610

END 

Chromatogram Sample Name: 9510D68-01A MS Sample #: KM ;W;1 Date : 11/03/95 01:34 FileName : l:\data\tchrom\btex\hp\_s\S\_\_\_728.raw Page 1 of 1 Method : BTEXS.ins Time of Injection: 11/03/95 01:15 Start Time : 0.00 min End Time : 18.21 min Low Point : 10.32 mV Plot Scale: 124 mV Scale Factor: 1 High Point: 134.23 mV Plot Offset: 10 mV 11.26 11.26 12.25 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 12.26 =1.92 =2.46 =2.78 =15.28 -14.00-4.48 -5.32 -5.86 Kesponse [mv] ETHYL\_BEN = 0-XYLENE -4-3-BROMOFE 1,2,3-1-BROMOFE BENZENE 1,4-DIFL TOLUENE

Retention Time

16

[min]

Software Version: 3.2 <16C20> Sample Name : 9510068-01A MSD

Sample Number: KMD;W;1

Time Study

: 11/03/95 02:05 : MODWG;1;PQL

Operator : VHZ

Instrument : HP\_S AutoSampler : NONE

Channel: A

A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial # : 4148271296 Data Acquisition Time: 11/03/95 01:46

Delay Time : 0.00 min. End Time : 18.21 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_s\s\_\_729.raw
Result File : l:\data\tchrom\btex\hp\_s\s\_\_729.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHOOS\BTEXS.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\8015S.prc : L:\DATA\TCHROM\BTEX\METHODS\SWG09185.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXS.seq

Inj. Volume : 2 ul Sample Amount : 1.0000 Area Reject : 100.00

Dilution Factor : 1.00

### PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT.	. Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	1.914	326300.56	94637.91 BE	1.0000e6	2.5672	0.8910		0.3263	0.8910
2	2.031	24041.00	2935.23 EV		2.5672	0.8910		0.0240	
3	2.298	4058.53	795.54 VV	1.0000e6	2.5672	0.8910		0.0041	
4	2.461	5385.42	1189.08 VV			0.8910		0.0054	
5	2.607	2882.47	627.98 VB	1.0000e6		0.8910		0.0029	
6	2.782	85624.00	18320.56 BB	1.0000e6		0.8910		0.0856	
7	4.480	74150.72	8394.33 BV	1.0000e6		0.8910		0.0742	
8	4.775	23084.44	3692.32 VV	1.0000e6		0.8910		0.0231	
9	4.984	172162.81	28449.98 VB	6152.7539			Benzene	27.9814	
10 •		271407.00	43750.86 BB			0.8910	1,4-DIFLUOROBENZENE	80.8838	
11	5.863	809132.00	104611.69 BB		2.5672		TFT	0.0000	
12	8.192	473573.00	54208.92 BB				Toluene	77.8420	
13	11.250	144950.19	46918.87 BV	6029.2227			Ethyl_Benzene	24.0413	
14	11.327	• 309858.81	97984.13 VB		2.5672		m and p Xylene	62.7769	
15	11.682	321672.47	118111.71 BE	6027.2065	2.5672		o-Xylene	53.3701	
16	11.963	1330.00	477.54 EB		2.5672	0.8910	o	0.0013	
17	12.132	156309.00	69986.63 BB	1758.2072			4-BROMOFLUOROBENZENE	88.9025	
18	12.498	1518.45	706.20 BV		2.5672	0.8910	1,3,5-Trimethylbenze	0.2610	
19	12.581	256751.31	108895.54 VV		2.5672		1,2,4-Trimethylbenze	45.8316	
20	12.848	1589.24	600.59 VB		2.5672	0.8910	1,2,3-Trimethylbenze	0.2936	
21	13.992	1439.50	479.26 BB		2.5672	0.8910	1/4/5 ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	0.0014	
22	15.277	1465.00	775.31 BB		2.5672	0.8910		0.0014	
23	15.412	1861.00	1010.02 BB		2.5672	0.8910		0.0019	
		3470547.00	807560.19		59.0456	20.4921		462.7356	20.4921

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	5.326 5.863 12.132	271407.00 809132.00 156309.00	43750.86 BB 104611.69 BB - 69986.63 BB		2.5672 2.5672 2.5672	0.3175	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	80.8838 0.0000 88.9025	
		1236848.00	218349.19		7.7016	0.9526		169.7863	0.9526

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Report Stored in ASCII File: l:\data\tchrom\btex\hp\_s\S\_\_\_729.TX0

Chromatogram Sample Name: 9510D68-01A MSD Sample #: KMD;W;1 : l:\data\tchrom\btex\hp\_s\S\_\_\_729.raw Page 1 of 1 Date: 11/03/95 02:05 Method : BTEXS.ins Time of Injection: 11/03/95 01:46 Start Time : 0.00 min End Time : 18.21 min Low Point : 10.24 mV Scale Factor: High Point: 134.93 mV Plot Offset: 10 mV Plot Scale: 125 mV =11.25 =11.88 =12.50 =12.85 -4.48 -5.33 -5.86 -13.99=15.28 [VIII] Sensesson ETHYLBEN = 0-XYLENE - 4-3BROMOFE | 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-18| = 1,2,3-1 Retention Time [min]

Software Version: 3.2 <16C20>

Sample Name : BLANK Time : 11/03/95 02:36 : MODWG;1;PQL Sample Number: B ;W;1 Study

: VHZ Operator

Channel: A A/D mV Range: 1000

Instrument : HP\_S AutoSampler : NONE Rack/Vial

Interface Serial #: 4148271296 Data Acquisition Time: 11/03/95 02:17

Delay Time : 0.00 min. End Time : 18.21 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_s\S\_ $_730.$ raw Result File : l:\data\tchrom\btex\hp\_s\S\_ $_730.$ rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXS.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\8015S.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\SWG09185.smp Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXS.seq

: 2 ul Inj. Volume Sample Amount : 1.0000

: 100.00 Area Reject

Dilution Factor : 1.00

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### PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1 2 3 4 5 6 7 8	1.888 4.989 5.323 5.857 11.683 12.131 12.581 15.277	57932.50 2446.00 277029.00 815320.00 667.00 163918.50 887.49 1453.00 1779.00	11840.48 BB 357.41 BB 44623.72 BB 105794.10 BB 223.90 BB 69580.74 BB 432.57 BB 786.36 BB 956.57 BB	1.0000e6 6199.8086 3381.1807 	2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672 2.5672	0.3392 0.3392 0.3392	Benzene 1,4-DIFLUOROBENZENE TFT 0-Xylene 4-BROMOFLUOROBENZENE 1,2,4-Trimethylbenze	0.0579 0.3945 81.9326 0.0000 0.1098 92.5229 0.1572 0.0015	0.3392 0.3392 0.3392 0.3392 0.3392 0.3392 0.3392 0.3392
		1321432.50	234595.88		23.1048	3.0531		175.1783	3.0531

Group Report For = SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM	
2 3 8	5.323 5.857 12.131	277029.00 815320.00 163918.50	44623.72 BB 105794.10 BB 69580.74 BB		2.5672 2.5672 2.5672	0.3225	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	81.9326 0.0000 92.5229	0.3225	
,		1256267.50	219998.56		7.7016	0.9675		174.4555	0.9675	

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Report Stored in ASCII File: L:\data\tchrom\btex\hp\_s\S\_\_730.TX0

### Chromatogram

ample Name : BLANK Sample #: B ;W;1 Date: 11/03/95 02:36 Page 1 of 1 : l:\data\tchrom\btex\hp\_s\S\_\_730.raw FileName Method : BTEXS.ins Time of Injection: 11/03/95 02:17 Start Time : 0.00 min End Time : 18.21 min Low Point: 10.97 mV High Point : 121.57 mV Scale Factor: 1 Plot Offset: 11 mV Plot Scale: 111 mV -11.68 -12.13 -12.58 -1.89-4.99 -5.32 -5.86 120-Nesponse Imv ETHYL\_BEN = 0-XYLENE -4-3-BROMOFIE 1,2,3-1-1 BENZENE 1,4-DIFL TFT TOLUENE Retention Time [min]

Software Version: 3.2 <16C20>

Operator : VHZ

Instrument : HP\_S

Channel: A A/D mV Range: 1000

AutoSampler : NONE Rack/Vial : 0/0

Interface Serial # : 4148271296 Data Acquisition Time: 11/03/95 03:50

Delay Time : 0.00 min.
End Time : 18.21 min.
Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_s\S\_\_733.raw
Result File : l:\data\tchrom\btex\hp\_s\S\_\_733.rst
Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXS.ins
Process File : L:\DATA\TCHROM\BTEX\METHODS\8015S.prc
Sample File : L:\DATA\TCHROM\BTEX\METHODS\SWG09185.smp
Sequence File : L:\DATA\TCHROM\BTEX\METHODS\BTEXS.seq

Inj. Volume : 2 ul
Sample Amount : 1.0000

Area Reject : 100.00

Dilution Factor : 1.00

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### PURFID Area Percent Report

Peak #	Ret Time (min)	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	1.907	276005.00	89380.08 BB	1.0000e6	2.5672	0.4018		0.2760	0.4018
2	2.289	955.00	343.99 BB	1.0000e6	2.5672	0.4018		0.0010	
3	2.452	4374.64	1075.31 BV	1.0000e6	2.5672	0.4018		0.0044	
4	2.603	3864.38	746.99 VB	1.0000e6	2.5672	0.4018		0.0039	- 4
5	2.922	7449.00	1314.58 BB	1.0000e6	2.5672	0.4018		0.0075	0.4018
6	4.970	3864.00	619.98 BB	6204.1118	2.5672	0.4018	Benzene	0.6228	0.4018
7	5.312	275800.50	43702.90 BB	3383.5276	2.5672	0.4018	1,4-DIFLUOROBENZENE	81.5127	0.4018
8	5.850	815886.00	105421.10 BB		2.5672	0.4018	TFT	0.0000	0.4018
9	11.328	1238.00	376.04 BB	4977.0781	2.5672	0.4018	m and p Xylene	0.2487	0.4018
10 .	11.685	1804.00	619.78 BB	6077.5166	2.5672	0.4018	o-Xylene	0.2968	0.4018
11	12.135	165597.28	70721.59 BV	1772.8833	2.5672	0.4018	4-BROMOFLUOROBENZENE	93.4056	0.4018
12	12.587	2963.23	699.66 VB	5648.8252	2.5672	0.4018	1,2,4-Trimethylbenze	0.5246	0.4018
13	12.863	965.00	342.92 BB	5458.9282	2.5672	0.4018	1,2,3-Trimethylbenze	0.1768	0.4018
14	14.015	• 939.00	345.16 BB	1.0000e6	2.5672	0.4018		0.0009	0.4018
15	15.277	1465.00	785.01 BB	1.0000e6	2.5672	0.4018		0.0015	0.4018
16	15.412	1770.00	961.08 BB	1.0000e6	2.5672	0.4018		0.0018	0.4018
••••		1564940.00	317456.13		41.0752	6.4280		177.0849	6.4280

Group Report For : SURROGATES

Peak	Ret Time	Area	Height BL	Area/	RF VALUE	PURFID AMT.	Component	RAW AMT	RAW AMT.
#	(min)	[uV-sec]	[uV]	Amount		PPM	Name	PPB	PURFID PPM
2	5.312	275800.50	43702.90 BB	3383.5276	2.5672	0.3228	1,4-DIFLUOROBENZENE	81.5127	0.3228
3	5.850	815886.00	105421.10 BB		2.5672	0.3228	TFT	0.0000	0.3228
8	12.135	165597.28	70721.59 BV	1772.8833	2.5672	0.3228	4-BROMOFLUOROBENZENE	93.4056	0.3228
		1257283.75	219845.59		7.7016	0.9683		174.9183	0.9683

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Report Stored in ASCII File: L:\data\tchrom\btex\hp\_s\S\_\_733.TX0

### Chromatogram

Sample Name : 9510D68-01A Sample #: SC ;W;1 Page 1 of 1 FileName : l:\data\tchrom\btex\hp\_s\S\_\_\_733.raw Date: 11/03/95 04:09 : BTEXS.ins Time of Injection: 11/03/95 03:50 Start Time : 0.00 min End Time : 18.21 min Low Point : 10.92 mV High Point: 122.23 mV Scale Factor: 1 Plot Offset: 11 mV Plot Scale: 111 mV -11.33 -11.69 -12.14 -12.59 -1.91 -2.29 -2.92 -14.02=15.28 -4.97 -5.31 -5.85 100 ₩ BENZENE 1,4 – DIFL Retention Time [min]

Software Version: 3.2 <16C20>

Sample Name : STD\_09 Sample Number: TC ;W;1 : VHZ Operator

Time : 11/03/95 11:25 Study : GROTEW;1;PQL

Instrument : HP S AutoSampler : NONE Channel: A A/D mV Range: 1000

Rack/Vial : 0/0

Interface Serial # : 4148271296 Data Acquisition Time: 11/03/95 07:56

Delay Time : 0.00 min. End Time : 18.21 min. Sampling Rate : 1.0000 pts/sec

Raw Data File : l:\data\tchrom\btex\hp\_s\s\_\_741.raw
Result File : l:\data\tchrom\btex\hp\_s\s\_\_741.rst Instrument File: L:\DATA\TCHROM\BTEX\METHODS\BTEXS.ins Process File : L:\DATA\TCHROM\BTEX\METHODS\8015S.prc : L:\DATA\TCHROM\BTEX\METHODS\SWG09185.smp Sample File

Sequence File :

Inj. Volume : 2 ul Sample Amount : 1.0000

Area Reject : 100.00 Dilution Factor : 1.00

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### PURFID Area Percent Report

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
1	1.875	64368.50	12672.94 BB	1.0000e6	2.5672	1.1695		0.0644	1.1695
2	2.771	418801.00	85148.91 BB	1.0000e6	2.5672	1.1695		0.4188	
3	4.458	363388.44	40462.17 BV	9.9999e5	2.5672	1.1695		0.3634	
4	4.750	104441.81	15907.93 VV	1.0000e6	2.5672	1.1695		0.1044	
5	4.958	228782.25	37581.93 VB	6206.5308	2.5672	1.1695	Benzene	36.8615	
6	5.298	273274.00	44527.79 BB	3384.8460	2.5672	1.1695	1,4-DIFLUOROBENZENE	80.7345	
7	5.832	816204.00	106215.52 BB		2.5672	1.1695	TFT	0.0000	
8	8.148	653525.50	75093.38 BB	6136.9482	2.5672	1.1695	Toluene	106.4903	
9	11.235	200207.84	65944.06 BV	6081.9194	2.5672	1.1695	Ethyl_Benzene	32.9185	
10 -	11.314	446177.16	141332.08 VB	4979.0181	2.5672	1.1695	m and p Xylene	89.6115	
11	11.671	438171.00	161279.33 BB	6079.8848	2.5672	1.1695	o-Xylene	72.0690	
12	12.124	163817.00	65978.09 BB	1773.5742	2.5672	1.1695	4-BROMOFLUOROBENZENE	92.3655	1.1695
13	12.497	1795.00	848.19 BV	5869.0147	2.5672	1.1695	1,3,5-Trimethylbenze	0.3058	
14	12.580	* 375399.00	155126.75 VE	5651.0269	2.5672	1.1695	1,2,4-Trimethylbenze	66,4302	
15	12.850	2369.00	566.16 EB	5461.0552	2.5672	1.1695	1,2,3-Trimethylbenze	0.4338	
16	15.179	1406.70	344.34 BV	1.0000e6	2.5672	1.1695	1,2,5 11 methy (belize	0.0014	
17	15.277	1678.31	838.85 VB	1.0000e6	2.5672	1.1695		0.0017	
18	15.411	1727.99	953.53 BB	1.0000e6	2.5672	1.1695		0.0017	
		4555534.50	1.01e6	**********	46.2096	21.0509		579.1765	21.0509

Group Report For : SURROGATES

Peak #	Ret Time [min]	Area [uV-sec]	Height BL [uV]	Area/ Amount	RF VALUE	PURFID AMT. PPM	Component Name	RAW AMT PPB	RAW AMT. PURFID PPM
2 3 8	5.298 5.832 12.124	273274.00 816204.00 163817.00	44527.79 BB 106215.52 BB 65978.09 BB		2.5672 2.5672 2.5672	0.3218	1,4-DIFLUOROBENZENE TFT 4-BROMOFLUOROBENZENE	80.7345 0.0000 92.3655	0.3218 0.3218 0.3218
		1253295.00	216721.41		7.7016	0.9652		173.1000	0.9652

Report Stored in ASCII File: \data\tchrom\btex\hp\_s\s\_\_741.TX0

ample Name : STD\_09 Sample #: TC ;W;1 Date : 11/03/95 11:25 Page 1 of 1 FileName : l:\data\tchrom\btex\hp\_s\s\_ : BTEXS.ins Time of Injection: 11/03/95 07:56 art Time : 0.00 min End Time : 18.21 min Low Point : 8.41 mV High Point: 175.25 mV ale Factor: Plot Offset: 8 mV Plot Scale: 167 mV =11.24 -11.67 -12.12 =12.50 -12.85 -1.88 The spanning [TTV] ETHYL\_BEN = O-XYLENE -BENZENE 1,4-DIFLU TOLUENE Retention Time

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# CHAIN OF CUSTODY AND SAMPLE RECEIPT CHECKLIST

95/62/0 (D) Ta/86

Environmental Laboratory 8880 Interchange Drive Houston, Texas 77054 713/660-0901

# Analysis Request and Chain of Custody Record $\# 664\ 303004/$

Project No.		ō	Client/Project Name	`		-	Project Location	9	•
1315-197	25		1001	ecH /	Min	Menneagalis	Mrn 40615	آ	
Field Sample No./ Identification	Date and Time	dana qmo	Sample Container (Size/Mat'I)	Sample Type (Liquid, Sludge, Etc.)	Preser- vative		ANAL YSIS REQUESTED		LABORATORY REMARKS
651-001 MW B	1605		3-2000	WATER	HCP	0728-201	0 42		
//	//		3-gluss	))	))	7PH- GRE	TPH-GROWDNR		
( (	11		1- glas	77	HCL	TPH-DR	TPH-DRO WOWR		
>1	11		1 plastic	11	DITRIC		SW- 6010		
			Pr2	)1	HCL	wht	Blank		
Samplers	Samplers: (Signature)		Relinquished by:	11 OPTecil	-6c1/	Date: 10/26	Received by:	Date: 10/26	Intact
gr3m	11/2		CHamisusic)	! ~ Z Z !	•	Time: 7730	Carle 10 am	Time: 1730	
	,		Relinquished by: (Signature)			Date:	Received by: (Signature)		Intact
Aff	Affiliation					Time:		Time:	
			Relinquished by: (Signature)			Date:	Received by: (Signature)	Date:	Antact A . C
						i ine:			)
SAMPLER REMARKS:	łKS:						constant.	Date:/0/27/92	Caboratory No.
Seal #							Data Results to:		

# SPL Houston Environmental Laboratory

# Sample Login Checklist

Date	e: 10-27-95 Time	: 16:30		
SPI	Sample ID:			
SI L	95/0C/	<i>'</i> 0		
			<u>Yes</u>	<u>No</u>
l	Chain-of-Custody (COC) form is p	resent.	1	
2	COC is properly completed.		V	
3	If no, Non-Conformance Workshee	et has been completed.		
4	Custody seals are present on the sh	ipping container.	V	
5	If yes, custody seals are intact.		V	
6	All samples are tagged or labeled.		V	
7	If no, Non-Conformance Workshee	et has been completed.		
8	Sample containers arrived intact			
9	Temperature of samples upon arriv	ral:		3 c
10	Method of sample delivery to SPL:	SPL Delivery		
	•	Client Delivery		
		FedEx Delivery (airbill #)	64430	30041
		Other:		
11	Method of sample disposal:	SPL Disposal		· · · · · · · · · · · · · · · · · · ·
		HOLD		A A A A A A A A A A A A A A A A A A A
		Return to Client		

Name:	Date:
Eluta Brown	10-27-95

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